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ORIGINAL LECTURES.

THE PRESENT STATUS OF ABDOMINAL SURGERY.

The Address in Surgery delivered before the American Medical Association, May 5, 1886.

BY N. SENN, M.D.,
OF MILWAUKEE, WIS.

(Continued from page 549.)

PYLORECTOMY.

It is only a few years ago since Billroth announced to the world the feasibility of partial excision of the stomach for malignant disease by a successful operation upon a human being. The members of the medical profession throughout the entire civilized world were unanimous in their admiration of the man who had achieved what appeared to be the greatest triumph of modern surgery. The method of operating was modified and improved by other operators, and in a short time the medical journals teemed with accounts of new cases from different sources. At the present time we are in a position to decide upon the justifiability of the operation. In studying the statistics of the cases so far reported, even the most enthusiastic advocate of the operation must feel that the expectations which had been anticipated have not been realized. The science and art of surgery have both been enriched through the labors of many bold and enthusiastic operators who have demonstrated the feasibility of pylorectomy, but the results obtained must also satisfy every conscientious surgeon that the time has come when the operation should be at least temporarily abandoned until improved methods of diagnosis will enable us to recognize cancer of the stomach early enough to be amenable to surgical treatment.

1. *Malignant disease.* Fourteen cases of pylorectomy for cancer operated upon by Billroth were analyzed by von Hacker as to the pathological conditions and the results which were obtained. He divided them into three classes: 1. No adhesions, disease limited to the coats of the stomach. 2. Slight adhesions, which were readily separated. 3. Extensive adhesions and metastatic tumors in adjacent organs. Only 2 of the patients belonged to the first class; 1 remained well $1\frac{3}{4}$ years, and the other $3\frac{3}{4}$ years after the operation. In the latter case a tumor returned in the abdominal wall, and another in the injured region, which was removed. The second class embraced 7 cases: 3 died soon after the operation; of the remaining 4, 3 died, 4, 10, and 12 months after the operation, from return of the disease; the fourth suffered from the return of the disease 6 months after operation. The 5 cases represented by the third class died from the immediate effects of the operation. It can be therefore seen that a favorable result can only be hoped for in cases coming within the limitation of the first class, in which the disease is cir-

cumscribed and has not passed beyond the limits of the stomach. Everyone must admit the difficulties which surround the diagnosis at this early stage of the disease and the unwillingness of the patient to submit to such a grave operation, when he is comparatively free from suffering, elements which, in accordance with Billroth's own experience, would limit operations to exceptional cases. Such statistics, in the practice of this most eminent surgeon, should definitely settle the question in the mind of any surgeon whose humanity has not succumbed to a morbid desire for transient fame.

Statistics from other sources can show no better results. In 61 cases of pylorectomy collected by Dr. Winslow, of Baltimore (*American Journal of the Medical Sciences*, April, 1885), 50 per cent. have died of shock within 26 hours, and of the cases which have recovered not one has lived for three years without recurrence of the disease at the site of the operation. Kramer has collected 82 pylorectomies, with 61 deaths. In 72 cases the operation was done for carcinoma; 55 died soon after the operation; of the remaining 17, only 1 proved a complete success. It is a source of congratulation to the surgeons of this country, that the statistics above quoted are made up almost exclusively of foreign material. While the American surgeon is anxious and ready to adopt all modern innovations and improvements, in this particular instance he has shown a degree of conservatism worthy of his reputation in that direction. When the time has arrived when we shall be able to make an early positive diagnosis of malignant disease of the stomach, pylorectomy will be resuscitated and will find a ready adoption and a hearty welcome on American soil.

2. *Ulcer of the stomach.* Rydygier was the first to apply pylorectomy to the treatment of gastric ulcer. He excised a simple ulcer of the pyloric extremity of the stomach with a portion of the head of the pancreas, which was intimately adherent to the posterior surface of the stomach. The ulcer had given rise to stenosis and dilatation of the stomach, for which the operation was undertaken. He affirms that resection of a portion of the stomach is a justifiable procedure in arresting hemorrhage from a perforating ulcer of this organ. Czerny treated successfully a case of perforating ulcer of the stomach, by making an incision through the anterior wall, through which the ulcer was made accessible to direct operative treatment. The ulcer was excised and the visceral wounds closed. Recovery was complete and permanent. According to the statistics of Kramer, pylorectomy of the stomach has been done 10 times for ulcer with 4 recoveries and 6 deaths. Cicatricial contraction at the site of operation necessitated a second operation in one case in less than a year after the excision. The danger of secondary cicatricial stenosis would rather tend to indicate the superiority of gastro-enterostomy as a primary operation in these cases, and more particularly so if the ulcer or cicatrix is situated in the narrowest portion of the stomach, the pyloric orifice.

GASTROENTEROSTOMY.

This operation was devised by Wölfler as a substitute for pylorotomy, in that class of cases in which, after an exploratory incision, it is found impossible to extirpate the diseased pylorus. The operation is performed with a view to reestablish the permeability of the digestive tract, by securing a new outlet to the stomach through the medium of a fistulous communication between it and an adjacent loop of the duodenum, or upper portion of the jejunum. An incision is made through the anterior wall of the stomach, and the margins are accurately stitched to a corresponding incision in the intestine by two rows of sutures applied in the same manner as in cases of enterectomy. As compared with pylorotomy, this operation is easier of execution, affords a wider range of application, and implies the infliction of less traumatism, while on the other hand it has the disadvantage that the pathological conditions which necessitated the operation are left unchanged.

1. *Malignant disease.* The mortality following this operation is much less than after pylorotomy. According to von Hacker, Billroth has performed gastroenterostomy 9 times in cases of cancer of the pylorus in which extirpation could not be practised; of this number, 5 died from the immediate effects of the operation, and 4 survived the operation and were improved for a short time.

Kramer gives an account of 16 gastroenterostomies for malignant disease of the stomach, with 10 deaths soon after the operation; 1 patient died four weeks after, from the effects of secondary tumors, the remaining 5 cases lived for several months. In one case Billroth performed pylorotomy and gastroenterostomy simultaneously upon the same patient. After the excision of the pylorus, the end of the intestine and stomach were closed with sutures and a new outlet for the stomach was established by gastroenterostomy. The patient was doing well five weeks after the operation. From the above accounts of the operation, it will be seen that for malignant disease of the stomach it has been resorted to only in those grave and desperate cases in which excision was found impossible, hence we cannot speak of permanent results, and although the mortality is less than after pylorotomy, it is questionable if the best results that can be obtained by it—a few weeks or months of alleviation—will compensate for the immediate risk of life incident to the procedure.

2. *Non-malignant stricture of the pylorus.* The future will probably assign the proper sphere of gastroenterostomy to the treatment of grave cases of non-malignant pyloric stenosis. The exclusion of a short space of intestine from the digestive tract by the establishment of a new pylorus by gastroenterostomy, will not interfere with the proper maintenance of health, hence the operation in these cases must be looked upon not only as a palliative but also as a curative measure. The results obtained in this class of cases are indeed encouraging. Kramer has collected 4 cases of which 3 recovered. In one of Rydygier's cases, a man twenty years of age, the diagnosis was made of ulcer pylori with cicatricial stenosis. When the abdomen was opened the stomach was found enormously dilated; nothing further was done, the abdominal incision was closed. As the suffering of the patient continued, he begged that

another operation be performed. The abdomen was opened again and a communication between the stomach and duodenum was established by Wölfler's operation, and at the time the case was reported the patient was doing well. From the results already obtained, it must be conceded that gastroenterostomy should be recognized as an established and legitimate operation in the surgical treatment of non-malignant pyloric stenosis.

DUODENOSTOMY.

This operation was devised by Langenbuch, in 1880, for cases of inoperable stenosis of the pylorus. As the name indicates, it consists in the formation of an external permanent duodenal fistula for the purpose of introducing food directly into the intestinal canal. It was intended for cases in which the general debility of the patient would preclude the propriety of the more grave operation of pylorotomy. The operation has been performed by Southam and Robertson, but both patients died on the day of operation. It is not probable that the operation will again be repeated.

JEJUNOSTOMY.

In view of the great mortality of pylorotomy and gastroenterostomy for malignant disease, Pearce Gould planned and executed the operation known as jejunostomy. The object for which the operation is performed is the same as in duodenostomy, only that the intestinal fistula is made in a portion of the intestinal tract, at a point where the mesentery is of sufficient length to permit the bowel to be drawn forward and stitched to the wound. His patient was forty-three years of age, and his vital powers were near to fatal exhaustion. An incision was made in the median line from an inch below the xiphoid cartilage to within an inch of the umbilicus. The disease was found to implicate the pyloric end of the stomach, the commencement of the duodenum, and mesenteric glands. The great omentum was pushed upward, and the upper end of the jejunum was drawn forward and stitched to the margins of the wound with a double row of silk sutures. The remaining portion of the wound was closed in the usual manner. The patient was nourished by rectal enemata and Slinger's nutrient suppositories. On the second day a small incision was made into the bowel through which an ounce each of cream and peptonized beef-tea was injected. The patient continued very restless and became weaker, and died of exhaustion sixty-six hours after the operation. The autopsy showed that the intestine had formed firm adhesions to the wound throughout, and that no inflammation had followed the operation. From the experience furnished by this case, he believes an incision through the left linea semilunaris would be preferable to the median incision. The sutures should be so placed that the part of the intestine presenting in the wound should be exactly opposite the mesentery. The opening in the bowel should be across the axis of the intestine, and only long enough to admit the nozzle of a syringe. The food should be administered through the fistula in only small quantities at a time, and gradually increased. When larger quantities are injected they should be given very slowly, so as to allow of this being mixed with the biliary, pancreatic, and intestinal secretions, and to prevent distention of the bowel. The food should be fluid, and acid in re-

action, the best articles being cream and peptonized milk, and beef-tea.

Golding Bird performed a similar operation for the same indications some two months later, without being aware of Gould's operation. The bowel was opened on the third day, when food was administered solely through the fistula. When the meal exceeded ten ounces it produced indigestion, in smaller quantities digestion and absorption appeared to be performed in a satisfactory manner. The patient improved considerably in health until the ninth day, when, through an error in feeding him, some food passed into the abdominal cavity, and he died in twelve hours. The reporter pointed out that by this operation duodenal digestion could be assured, and there was, for physical reasons, less chance of regurgitation than after gastrostomy, and that the procedure required, in its performance, less interference with other viscera than gastroenterostomy.

Interesting as these operations may be from a surgical and physiological standpoint, it is to be hoped that in the future their application will be limited to experiments on the lower animals.

I have alluded to the different forms of "ostomies" for malignant diseases to show how extensively the principles of abdominal surgery have been applied in laudable attempts to afford relief after the disease had passed beyond the reach of radical measures. As a matter of course, the results have been so unsatisfactory that future attempts in the same direction should be abandoned as incompatible with the true aim and advancement of abdominal surgery.

SPLENECTOMY.

Accumulated experience appears to have definitely settled the indications for this operation. As the result of a study of thirty cases of splenectomy, Cr  d   has come to the following conclusions: 1. Adults tolerate removal of the spleen without permanent ill results. 2. Extirpation of the spleen produces a temporary disturbance in blood production. 3. The diminution in blood production is corrected by a vicarious action of other blood-producing organs, the thyroid and the medullary tissue in bone. 4. The physiological function of the spleen consists in effecting a transformation of the white into red blood-corpuscles.

During the past year a new case of splenectomy for leuk  mia has been reported by Rydygier. The extirpated organ weighed six pounds. The patient, a woman thirty-one years of age, died on the following day of hemorrhage from the abdominal wound. The ligature on the main bloodvessels involved held perfectly, and Rydygier ascribed the hemorrhage to imperfect coagulation dependent upon the altered condition of the blood. This case brings the total number of deaths from this operation up to eighteen, of which sixteen were of hemorrhage and two from shock. Thus far, the only successful case of splenectomy for leuk  mia is that performed by Franzolini.

As the pathology of splenic leuk  mia remains to be explained and the mortality after extirpation has been so fearful, it would appear almost criminal to increase the sad statistics by adding new cases to the number of failures.

Splenectomy for visceral injury of the organ can show a splendid record, as of twenty cases collected by Zesas

of partial or complete removal of a prolapsed spleen all recovered.

Cr  d   extirpated the spleen successfully for cystic disease. The incision was made along the outer margin of the rectus muscle on the left side from the costal arch to the crista ili. The pedicle was ligated and the stump dropped into the abdominal cavity. The patient, a female, became more and more an  mic for a number of weeks. Four weeks after the operation the thyroid gland became swollen and tender. The gland returned to its normal condition with the general improvement of the patient a few weeks later. Five years after the operation Cr  d   reported his patient as remaining well. The temporary change in the blood had passed away and no abnormal tumefaction of any of the blood-producing organs could be found.

Billroth extirpated a sarcomatous spleen with four cm. of the tail of the pancreas, in a woman forty-three years of age, who had noticed the tumor for seven years. The growth had been rapid for the last two years. The tumor was firmly adherent to the omentum, small intestines, and pancreas; the latter organ was divided with Paquelin's cautery. The operation was not followed by any serious symptoms. During the third week a microscopic examination of the blood showed a slight increase of the white blood-corpuscles. The patient was feeling well four weeks after the operation. The numerous extirpations of the spleen made by Zesas on animals have demonstrated that it is not an essential organ, and that its physiological function in the production of blood corpuscles is adequately performed by vicarious organs, so that we can safely include splenectomy for visceral injuries and local diseases of the spleen among the well-established legitimate surgical procedures.

(To be continued.)

ORIGINAL ARTICLES.

SUCCESSFUL NEPHRECTOMY ON A PATIENT OF TWENTY-THREE MONTHS.¹

BY ROSWELL PARK, A.M., M.D.,

PROFESSOR OF SURGERY IN THE MEDICAL DEPARTMENT OF THE
UNIVERSITY OF BUFFALO.

R. B., born Oct. 4, 1883, of healthy parents, appeared at birth and during his earliest months perfectly well. During the ensuing winter his nurse noticed an enlargement on the right side of the child's abdomen. Later, the attention of the family attendant, Dr. M. B. Folwell, of Buffalo, was called to the fact. It steadily increased without corresponding impairment of health, and in spite of treatment. In June, 1885, Drs. E. M. Moore and Whitbeck, of Rochester, were consulted. The general conclusion arrived at was a lesion of the right kidney. At this time the urine was alkaline.

July 31, 1885, I first saw the child, it being then in apparent good health. The urine was alkaline from volatile alkali. It was stated that there was occasional dysuria. Under the microscope there were to be found only numerous crystals of triple phosphates. There was a history of steady enlargement of the growth. Dr. Folwell giving an an  sthetic, I first examined the external genitals; finding

¹ Read before the American Surgical Association, April 30, 1886.

adherent prepuce, I released the adhesions with a probe. I next carefully sounded the bladder, but could find no calculus. On examining the abdomen I found a firm, resistant tumor, about the size and shape of a foetal head at term, occupying the right half of the abdominal cavity. It seemed unquestionably an enlarged kidney. Introducing an aspirator needle I drew off 15 c. c. of a brownish liquid which was odorless, this amount being all that would flow from the puncture.

This I submitted to my colleague, Prof. Witthaus, for examination, withholding all information—even as to sex of the patient—save that it came from an abdominal tumor. He kindly furnished me the following report: "I find that the liquid which you left me for examination does not contain uric acid, nor any very readily detectable amount of urea; on the other hand, it contains paralbumen in considerable quantity, and a peculiar modification of hæmatin which is stated by MacMunn to be peculiar to ovarian and parovarian cysts. From all characters of the liquid I should say that it came from a cyst which does not communicate with the pelvis of the kidney. All the microscopic and chemical characters of the liquid are those of the fluid of an ovarian cyst. There are, however, no cholesterine crystals, which are usually though not always present." Microscopically I also found cells which could not be distinguished from the Drysdale cells. In endeavoring to reconcile these chemical and clinical facts, I recalled a statement of Esmarch's to the effect that paralbumen has been found in the fluid of renal cysts; also the known fact that the Drysdale cell has been found in various intra-abdominal cysts. My diagnosis was fibro-cystic degeneration of the right kidney, probably of congenital origin.

Sept. 5. Drs. Folwell, Mann, and myself again anesthetized and carefully explored. By aspiration we got again a small quantity of fluid similar to that first obtained. In the five weeks intervening since previous aspiration the tumor had notably enlarged and become less movable; while the general health of the little patient seemed deteriorating. The tumor was now so protuberant that he was actually wearing an abdominal suspensory, slung from the shoulders, in which he supported most of its weight.

Operation was proposed and consented to. The patient was removed to the Gates Laparotomy Pavilion in connection with the Buffalo General Hospital, where, indeed, he was the first patient admitted. He had thus the advantage of new and clean apartments.

Operation Sept. 15, 1885. Present: Drs. Rochester, Mann, Phelps, Hopkins, Folwell, who gave the anæsthetic, and the house physician and trained nurses. Chloroform (with amyl nitrite one per cent.) was given till the operation was half completed, when ether was substituted. No spray was used, but the strictest antiseptic details were observed in every other respect. Incision in right linea semilunaris, its middle opposite the umbilicus. On opening the peritoneum the first object to meet the eye was the appendix vermiformis, which lay stretched out over the surface of the tumor, almost at right angles to the line of incision, so far had it

been crowded away from its proper locality. The tumor was, of course, retro-peritoneal, but occupied the entire right half of the abdomen; the cæcum and ascending colon were just to the left of the middle line. Exploration with the finger and sound revealed only the most trifling adhesions in the peritoneal cavity. A small trocar passed into the interior of the tumor failed to remove more than a spoonful of fluid. The abdominal incision was then extended till it was 13 centimetres long, and the peritoneum covering the growth incised. With but little difficulty this was separated all around it till the tumor shelled out from its serous covering, and lay loose save for its pedicle. Two large veins being quite conspicuous in the pedicle, they were first tied separately with catgut, then the whole was tightly seized with a pile clamp, tied in halves with stout silk, the tumor cut off and its base seared with the thermocautery. For the sake of safety, the whole was then once more enclosed in a catgut ligature, after which it was dropped.

Except that which was contained in the tumor, not more than 15 c. c. of blood was lost during the entire operation. After a careful toilet the abdomen was closed by numerous silk sutures. The entire procedure, including dressing, lasted forty-five minutes. Shock was comparatively slight.

Convalescence was marked by only one incident worth notice. The second evening his temperature began to rise, at 6 P. M. it was 103°, at 10 P. M. 104°, at 11 P. M. 104.7°, at 4 A. M. nearly 106°, in spite of half-hourly doses of tinct. aconite root. At 4 A. M., when his temperature was so nearly 106°, I ordered three minims of aconite tincture and five minims of tincture of digitalis hypodermatically. In two hours his temperature had *fallen more than six degrees*. This was a happy turning of a crisis which seriously menaced his life.

In due time chloroform was given for the removal of the stitches, and on the twelfth day he was removed to his home. At present writing, seven months later, he is the picture of health.

The tumor was, as I had supposed, a fibro-cystic degeneration of the kidney; the cystic element largely predominating. In the neighborhood of the renal pelvis a very thin portion of true kidney structure could still be distinguished. Immediately after removal and before section, it weighed very nearly four pounds, lacking only a fraction of an ounce. The function of this kidney seemed to have been so gradually transferred to the other that at no time after the operation was there the slightest disturbance in excretion or voidance of the urine.

I am aware that at the present date over two hundred and fifty nephrectomies are on record, yet among them all I can find account of but three patients who were of ages near that of mine. These are as follows:

Jessop, of Leeds, operated on a child aged two and one-quarter years, for encephaloid kidney. Lumbar incision. Patient recovered from operation and died nine months later from recidive. (*Lancet*, Am. ed., 1877, p. 480.)

Kocher, of Berne, reported a patient aged two and a half years, operated on for adeno-sarcoma.

Death on the second day. Abdominal incision. (*Deutsche Zeitschrift. f. Chir.*, ix.)

Czerny operated on an infant of eleven months for adenoma of left kidney. Death in sixty hours. Abdominal incision. (*Deutsche med. Wochenschrift*, 1881, 31.)

It would thus appear that mine was the youngest patient who has ever survived nephrectomy, he being twenty-three months old when operated on. The only other observation I have to make in connection with the case is that the abdominal incision was made not from choice, but from necessity, the tumor being altogether too large for extraction from so small an abdomen in any other way.

A CASE OF CLOSURE OF THE ORIFICE OF
THE CYSTIC DUCT BY A GALL-STONE;
ABSCESS OF THE GALL-BLADDER;
CHOLECYSTOTOMY; RECOVERY.¹

BY JOSEPH C. HUTCHISON, M.D.,
OF BROOKLYN, N. Y.

MRS. S., a widow about forty years of age, was brought to me for examination and treatment by Dr. A. T. Bristow, of Brooklyn, in January, 1885, with the following history.

Twelve years ago she began to have paroxysms of severe pain in "the pit of her stomach, running through to the back," coming on suddenly, and lasting usually about twenty minutes, but occasionally continuing an hour. There was sometimes an interval of a year or more between the paroxysms; then again they would come every day and even several times a day. On one occasion the paroxysm came every day, and oftener, for more than a month. As a rule, she says, the paroxysms were more frequent when she was in ill health or "run down," or became wearied by any unusual exercise. They were not attended by nausea and vomiting or febrile disturbance, and were not followed by jaundice. She was at this time under the care of an irregular practitioner, who ascribed the pains to neuralgia of the stomach.

She came under Dr. A. T. Bristow's professional care in July, 1884, at which time he noticed a tumor about the size of his fist in the right side of the abdomen, below the level of the umbilicus. Pressure upon it produced a sense of oppression and shortness of breath, but no pain was developed. There was, most of the time, a dull ache in the region of the tumor, and to get relief she would involuntarily apply the hand, and move the tumor to one side or the other. She could move it laterally two inches. She had been free from the attacks of pain for more than two years. She was anæmic, and complained of exhaustion, but was able to attend to her household duties. The bowels moved regularly, and the feces were normal in color and consistency. There was no suspicion of hepatic disease; she had never had jaundice; chemical and microscopical examination of the urine showed that it was normal in all respects; had never had rigors or fever; was fairly well nourished; menstruation regular; heart and

lungs healthy; and there was no suspicion of diathetic disease.

I examined the tumor in January, 1885. It extended from a line on a level with the umbilicus, and an inch to the left of it, across to the right lumbar region, and downward to within two inches of Poupart's ligament. It was irregularly rounded, fluctuated distinctly, was movable from side to side, and painless. There was no dulness between the tumor and the liver. The uterus was normal in size. The diagnosis was, cystic tumor of the ovary, and she was operated on May 18, 1885.

During the week preceding the operation the urine was examined several times, and was found to be in a normal condition; the bowels were moved by mild cathartics every day, and a few hours before the operation they were well moved by an enema; she had a warm bath every night; no food was allowed for five hours before the operation. The temperature of the room was kept at 80° during the operation. After the patient was placed upon the operating table and anesthetized with ether, I again examined the tumor carefully. A question arose as to the correctness of the diagnosis, and I was unable to decide positively what its character was. I, therefore, made an exploratory incision through the linea alba beginning one inch below the umbilicus, and extending it downward two and a half inches. When the abdominal cavity was opened, the cyst, white in color, was brought to view, and a steel sound dipped in hot water, passed in and swept around the tumor, showed that there were no adhesions. With a large trocar one pint of laudable pus was withdrawn from the sac. Microscopic examination subsequently showed that there were no cholesterine crystals or other elements to indicate that the fluid came from the gall-bladder. There was no hemorrhage that required the use of a ligature.

The cyst was seized with forceps, and drawn up into the wound, to prevent its contents escaping into the abdominal cavity. In manipulating the sac I discovered that it contained a rounded, solid body, which, on being removed by the finger, after the opening made by the trocar had been enlarged, proved to be a gall-stone. On further exploration another was found, pointed on one side, the point fitting into the orifice of the cystic duct, completely occluding it. This condition explains the absence of jaundice, the absence of clay-colored stools and of bile pigment from the urine. An effort was made to explore the cystic duct with a probe, but its orifice could not be found. Two fingers were carried along the collapsed gall-bladder to the under surface of the liver, to ascertain, if possible, if the ducts were free from pus, calculi, or other obstructions, but none were found. The sac was well irrigated with warm water, and the edges of the opening into it were then stitched with five interrupted silk sutures, to the upper end of the wound in the abdominal walls, leaving the opening into the gall-bladder quite free. The edges of the peritoneum were closed by a continuous catgut suture, and the remainder of the abdominal tissue by interrupted silk sutures, carbolyzed, carried down to the peritoneum, but not through it. The walls of the gall-bladder were one-

¹ Read before the New York Surgical Society, April 26, 1886.

fourth of an inch thick. A glass drainage tube was introduced into the gall-bladder, and the wound was dressed with oiled lint, sprinkled with iodoform, and covered with marine lint and a bandage. The gall-bladder was irrigated daily for four or five days through the drainage tube, with a half per cent. solution of carbolic acid.

Bile began to flow from the drainage tube on the second day after the operation, and it continued to flow from the fistulous opening for six weeks, when the fistula was entirely closed. Neither food nor drink was allowed the patient for the first twelve hours; after that she took half an ounce of milk and Vichy water every hour for twenty-four hours, and then the quantity of nourishment was gradually increased. She was entirely free from nausea during her convalescence. The catheter was used for several days. The temperature was taken every six hours for a few days. Once it reached 101° , but it was promptly reduced to 99° by the abdominal rubber coil. She was a good deal distressed with intestinal gas, and was not relieved by the introduction of a large rubber male catheter into the rectum; but ten minims of oil of turpentine, in capsules, every two hours gave prompt relief. The sutures were removed on the eighth day, and straps of adhesive plaster applied over the abdominal wound, and a bandage around the body. The bowels were moved toward the end of the first week, and on the twenty-first day she was allowed to get up. She suffered severely from urethral neuralgia for five weeks, but was relieved entirely by change of air.

The calculi are irregularly rounded, three-fourths of an inch in diameter, and weigh ninety-seven grains. Microscopic examination shows that they are composed largely of cholesterine.

Remarks.—An interesting feature of this case was the uncertainty of the diagnosis and the absence of symptoms calling attention to the gall-bladder. These had been confined to paroxysmal pains in the epigastric or hepatic regions for nearly three years. The pain which the patient had, in the early history of the case, referred to the pit of the stomach and extended to the back; although irregularly paroxysmal, it was unattended by nausea and vomiting, and was not followed by jaundice or clay-colored stools—symptoms which are almost pathognomonic of the passage of biliary calculi. During the period of painful paroxysms the feces were not examined for biliary calculi; had they been found it would have cleared up the diagnosis.

Aspiration would have thrown no light on this case. Indeed, it would have made the nature of the tumor still more uncertain, because none of the elements of bile would have been found in the fluid removed, which consisted of pure pus. Acupuncture might have aided in the diagnosis, but in so large a collection of pus it is not probable that the needle would have found the stone. Although the cholecystotomy was unpremeditated in this case, I would, in a similar operation, with the experience which this one has furnished, pursue the same plan. The incision in the linea alba is attended by less hemorrhage than the usual incision along the margin of the ribs, and experience has shown that

an enlarged gall-bladder can be reached quite as readily by an incision as the other. Suturing the opening in the gall-bladder to the abdominal walls, and establishing a biliary fistula should, I think, be preferred to sewing it up and leaving it in the abdominal cavity: (1) because there would be less danger of the escape of bile into the peritoneal cavity, and (2) if the calculi cannot be found at once, they may be searched for subsequently, or be spontaneously discharged through the fistulous opening. The fistula usually heals in a few weeks. I saw the patient, January 25, 1886. She feels well, and is greatly improved in appearance. There is a slight ventral hernia in the course of the wound, but no dragging sensation from the adhesions of the gall-bladder to the abdominal wall. This case is another illustration of the difficulty in always positively diagnosing abdominal tumors, and of the importance of being prepared, before operating, for unexpected conditions.

MEDICAL PROGRESS.

THE DISINFECTION OF THE HANDS.—KÜMMEL, of Hamburg, has performed an elaborate series of experiments with a view of ascertaining the best method of rendering the hands of the operator absolutely aseptic. He finds that this result is much less readily obtained, if the hands have previously been employed in the removal of bandages or in post-mortem sections. Under these circumstances the application of corrosive sublimate (1:1000) as recommended by Förster was found to be inefficient. The conditions which Kümmel finds necessary for the disinfection of the hands are:

Five minutes active and thorough washing with soap and a brush in water as hot as can be borne. This is followed by a thorough brushing of the hands with freshly prepared, official chlorine water, or with a five per cent. solution of carbolic acid, two minutes being given to this part of the process in either case. In practice, the forearm is also washed, and the need of prophylactic precautions, as to change of clothing, etc., are evident.—*Centralbl. f. Chirurgie*, April 24, 1886.

COCAINE ANÆSTHESIA IN PARTURITION.—At the meeting of the Association of German Physicians in Prague on April 9, 1886, FISCHEL presented the record of five cases in which local applications of cocaine were used to diminish the pains of labor. He quoted the brilliant results obtained by Doléris, in whose observations the drug was applied to the vaginal mucosa and the external genitals in aqueous solution, or in the form of a salve, the strength in either case being four per cent. The amount used was from forty to sixty drops of the solution and forty-five to sixty grains of the salve. In this manner Doléris induced practically painless delivery in thirteen out of fifteen primiparæ.

Fischel's results were less striking. Employing, as a rule, weaker cocaine solutions, he records one case of absolutely painless delivery, two in which the pain was greatly diminished by the application, and two in which the results were negative.

These observations, apart from the practical interest, tend to show that the seat of the labor "pains" is not in the uterus, but in the dilating cervix and the vagina.—*Wiener med. Presse*, April 25, 1886.

SENILE CHANGES IN THE CEREBRAL CORTEX.—KOSTJURAN has examined a number of brains of old people in Professor Obersteiner's laboratory, in order to establish the histological changes to which the various tissue elements of both simple and senile atrophy may be referred.

He arrived at the following conclusions:

1. The great part of the nerve cells in old age belong to a class of a more or less well-marked pigmented fatty degeneration, and show sometimes the formation of vacuoles.

2. The medullated nerve fibres of the cerebral cortex in part atrophy and become fewer in number.

3. The small bloodvessels are affected by atheromatous degeneration, viz., an almost universal spindle-shaped thickening of the connective tissue of their walls, which may result in the entire closing of their lumen. The quantity of the normal amount of pigment present in the adventitia of the arteries seems slightly increased.

4. In place of the atrophied cells and nerve fibres, there is a slight thickening of the connective tissue.

5. At the periphery of the convolutions of the brain there is always a larger or smaller quantity of corpora amylacea, which may form a continuous enveloping layer round the cerebral cortex.

These several degenerative changes are, as regards their intensity, so dependent on the age of the individual, but rather correspond to the decrease of weight of the brain; in heavy, though at the same time very old brains, they may be nearly absent, whilst in much younger but particularly light brains, they are very marked. This is mostly the case when there are degeneration and decrease of the nerve fibres.

Further, the above described changes of the different elements forming the cerebral cortex will suffice to explain all those phenomena which characterize senility, so far as the activity of the brain is concerned.

One must regard them as the normal result of the brain of old age, and when other pathological appearances are present in such brains they must be referred to other causes than old age.—*Brain*, April, 1886.

THERAPEUTICS OF EPILEPSY.—In an article by DR. C. L. DANA, in the *New York Medical Journal* of April 24, 1886, there is given the following *résumé* of some favorite special forms of treatment:

The *zinc treatment* of Herpin was as follows: Give gr. ij½ of zinc oxide ter in die, increase the dose by gr. ¼ every week until gr. xj are taken t. i. d. Keep this up for at least three months. It appears that Herpin subsequently used to add or alternate with ammonio-sulphate of copper or selenium.

The *belladonna treatment* of Trousseau;

R.—Ext. belladon. fol.,

Pulv. belladon. fol. āā gr. ½.—M.

Sig.—One A. M. and P. M. for one month.

Then increase the dose by one pill daily each month until twenty pills are taken night and morning. The treatment must be continued for a year.

Gowers's method consists in giving the bromides in single doses at intervals of from two to five days, these single doses being gradually increased. Thus the patient takes 3j on the first day, 3jss on the third day, 3ij

on the sixth day, 3ij on the ninth day, 3iv on the fourteenth day, and so on until the maximum dose of about 3j is reached, when the drug is decreased in the same way.

I have found this a very good method if during the intervals tonics and adjuvant measures are employed.

The *method of Meynert*, in many cases, is to give fifteen grains of bromide of potassium three times daily, and increase the dose by fifteen grains every time a fit occurs until they are suppressed.

A *mixed treatment*, like the following, is recommended by Ball and Handfield Jones:

1. R.—Ammon. bromid.,

Sodii bromid. āā 3ijss.

Infus. valerianæ 3x.—M.

Sig.—3ij daily, increasing until 3ijss of the bromides are taken daily.

2. At the same time take a pill:

R.—Ext. belladonnæ gr. ¼

Zinci oxidi gr. iij.—M.

Sig.—One, morning and night.

3. A drastic purge weekly.

An *acid mixture* for epileptics, which I have found efficient in two cases which resisted other forms of medicine was:

R.—Acid. hydrobromic. dil., 10 per cent. 3j.

Atropinæ hydrobromat. gr. ʒss.

Zinci citrat. gr. iv.—M.

Sig.—Take this t. i. d., and gradually double the dose.

A mixture alleged to be very efficient is:

R.—Potass. bromid. gr. xv.

Sodii arsenit. gr. ʒss.

Picrotoxin gr. ʒss.—M.

Gradually increase.

A NEW METHOD OF TESTING TACTILE SENSIBILITY IN UNILATERAL BRAIN LESION.—H. OPPENHEIM describes his method as follows:

In unilateral brain lesion a partial hemianæsthesia is often present, which may be overlooked. If the slightly anæsthetic side is touched, the patient says he feels the touch, and is sometimes unable or unwilling to admit a difference in the sensation between this and the unaffected side. Oppenheim finds that in these cases, if the patient's eyes are covered, and the symmetrical spots on the body or limbs are touched at once on both sides, he will perceive the touch on both sides if no anæsthesia is present; but on the unaffected side only, if the other is slightly anæsthetic. The recorder can confirm this statement as tested on two cases.—*Journal of Nervous and Mental Disease*, March, 1886.

TREATMENT OF IVY POISONING.—DR. AUGUSTINE BROWN calls attention to a specific remedy for ivy poisoning which he described eight years ago in the *Medical Record*. This remedy is bromine, which Dr. Brown has employed with unvarying success in seventy-five cases, using the following formula:

R.—Brominii gtt. x-xx.

Ol. olivæ seu

Ol. amygdalæ dulc. f 3j.—M.

Sig.—Apply freely to affected surface four times daily. Wash with warm water and castile soap twice daily.—*Northwestern Lancet*, May 1, 1886.

THE MEDICAL NEWS.

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SATURDAY, MAY 22, 1886.

THE THERAPEUTIC MITIGATION OF ANTHRAX.

In the appendix to the April number of the *Journal of Physiology*, there is published a most interesting precursory note by DR. THEODORE CASH, on a method of antiseptic medication, by which not only is the severity of anthrax poison greatly diminished, but also immunity from subsequent attacks is conferred by the modified and relatively mild disease.

The fact that considerable quantities of perchloride of mercury are retained in the organism for some days after the administration of the drug has ceased, and that as a germicide it is still operative even in very great dilution, led Dr. Cash to the idea that a modified form of certain diseases, depending upon the presence and multiplication of pathogenic micro-organisms, might be produced by administering a known quantity of the drug before inoculating with the special virus.

The experiments described have thus far been limited to anthrax inoculations, but the results are so striking as to justify a hope that a much more extended application of the method will be found. In one animal, a rabbit weighing about 1800 grm., the total dose of 0.015 grm. corrosive sublimate was administered hypodermically in divided and highly diluted doses in the course, of seven days. On the eighth day inoculation with unmitigated anthrax virus was made. The control animal inoculated at the same time died within forty-four hours, but the prepared rabbit suffered only a passing disorder from which it soon recovered. In four weeks and six weeks respectively the inoculation was repeated, the control animal in each case dying within forty-eight hours; but on neither occasion did the prepared rabbit show any further symptom. It is safe to infer from this

and other experiments having a like result, that a modified attack of anthrax had occurred which rendered the animal, for this length of time at least, immune from the virus. Short of the protecting effect, a smaller dose (roughly speaking, 0.005 grm. per kilo. body weight) was found to cause in the fatal issue a delay which bore a relationship to the variations (within certain limits) of the dose. When delay resulted, the number of bacilli found in the blood after death was extremely small; but this virus-containing blood showed itself to be unmitigated and unmodified with regard to its action upon another animal.

More exact details as to the relation which should exist between the dose and the weight of the animal, and in regard to the length of time to which the treatment should be extended, are promised by Dr. Cash. It is to be hoped that a method promising so much as this, and one which apparently offers direct proof of the possibility of poisoning the germs of disease without poisoning their host, will receive on this side of the Atlantic the close investigation which it merits.

HAY FEVER.

DR. OSCAR BESCHORNER, of Dresden, in a late number of the *Internationales Centralblatt für Laryngologie, etc.*, gives a most complete historic résumé of hay fever literature, with 145 references, extending from Botallus in 1565 to the present date. After alluding to the opinion, until recently prevalent in Germany, that the disease was either unimportant or very rare, and stating that, up to a little more than a decade, some of the most experienced German physicians had never encountered a case, he cautions against mistaking every instance of spring snuffles for hay fever, or spring snuffles accompanied by dyspnoea for hay asthma. The recent augmentation of hay fever patients in Germany may be attributed, he thinks, either to increasing emigration from country to city, and consequent prolonged residence in contracted apartments, in accordance with the theory of Blackley, or to the recent popularization of medical topics directing the attention of the public to the disease, and to the value of galvanocauterization of the nose in the treatment of numerous constitutional maladies, especially those of the respiratory organs, which naturally occupy the first rank.

Of all the names—some fifty—proposed for the malady, Beschorner prefers hay fever, the oldest, the most familiar, and the most popular. He defines it as a catarrhal inflammation of the conjunctiva and the mucous membrane of the nose and of the upper air-passages, excited by the pollen of plants and particularly of grasses; occurring only during the flowering season, in individual, but regularly re-

curring, annual accesses; attended with slight febrile movements and disturbances of the general comfort; sometimes associated with actually threatening manifestations, asthma especially, but always terminating favorably.

After running chronologically through the different etiological opinions of observers, he concludes that the malady appears to require a certain and perhaps inherited neurotic constitution, not general neurasthenia in the ordinary sense of the word, but an unusual irritability in certain nerve areas, particularly those of the upper respiratory organs, and especially that of the nose; that is to say, principally in the domain of the trifacial nerve. This irritability favors a slight distention of the blood-vessels supplying the same areas, and is excited or favored either by inherited or acquired pathological changes in the nasal passages, their epithelial layer, their mucous membrane, capillaries, and nerve endings.

This predisposition existing, the pollen of the flowering grasses is, by far, the most frequent exciting cause, annually reproducing attacks as the same seasons recur. The structure of the pollens is discussed, with their behavior under moisture, to show how the local distress can be accounted for by mechanical and chemical irritation, and the constitutional disturbance by the hypothesis of the penetration of the minute particles into the blood-current.

The two forms of hay fever, catarrhal and catarrho-asthmatic, may occur together or alone; either one may follow the other; or one or the other affect the same individual in different years.

The symptoms of the malady are well described in detail. The principal methods of treatment are passed in review, and decided preference is expressed for radical destruction of the supersensitive tissues by the electric cautery, due caution being given to operate with great circumspection and at sufficient intervals, so as to avoid such accidents as œdematous swelling of the face, erysipelatous inflammation of the nose and cheeks, rheumatoid (pyæmic?) swellings of the extremities, inflammation of subcutaneous connective tissue in parts near the nose, extensive erythema, destruction of the sense of smell, inflammation of the middle ear, neuralgia, febrile disturbance, and abortion—all of which have followed galvanocautic procedures. Rest after operations, occlusion of the nose with tampons of cotton, the insufflation of mild alkaline lotions, and restricted diet are indicated as necessary adjuncts in the treatment.

While the ordinary hay fever of early summer occurs in all countries, the autumnal variety is supposed, as stated by Wyman, to be peculiar to certain regions of the United States, and to be due to the irritation excited by the pollen of the ragweed, Roman

wormwood or ambrosia *artemisiæfolia*, which has been until lately an exclusive product of this country, flowering in August and September. PROF. HACK, of Freiburg, however, in the *Deutsche med. Woch.*, No. 9, 1886, narrates a case of periodic autumnal catarrh of twenty-two years recurrence, in a German who has never lived out of Germany; and in a footnote he remarks that seeds of the ambrosia *artemisiæfolia* have been brought of late years into certain portions of southern Germany along with American clover seed, a fact which he intimates does not, of course, account for the prolonged period during which his patient had been subject to the malady. Rhinoscopic examination of his patient revealed bilateral venous turgescence and hyperæsthesia of the entire mucous surface of the middle and lower turbinates. He, therefore, regards this condition as a chief factor in the development of the malady, in accordance with the opinion most prevalent among American observers.

It is interesting to note that during two seasons, the autumn of 1878, when the patient happened to be in Switzerland, and that of 1884, which he passed in Blankenese, his annual attacks were suspended; an immunity similar to that secured at some of our American mountain resorts. Hack attributes the ordinary hay fever of spring and summer to a supersensitiveness of the nerve endings, both sensory and olfactory, in the nasal mucous membrane, which leads to turgescence, such as has been described above; the character of the exciting irritant, whether pollen or anything else, being a consideration of secondary importance. A nervous diathesis and general abnormal reflex sensibility are held to account, in many instances, for the ready turgescence of the turbinates. Topical treatment of the supersensitive areas—galvanocautic, of course—is, in his opinion, the best treatment for the cure of the local affection and of the reflex manifestations it occasions.

STATUS OF THE LAW REGULATING HOUSE DRAINAGE IN PHILADELPHIA.

It appears as though Philadelphia is to be deprived of the full benefits of the law regulating house drainage and plumbing in that city, through the dilatory action, or rather inaction, of City Councils. The law which was passed in June, 1885, authorizes and directs the Board of Health to adopt and promulgate suitable rules and regulations for the construction of house drainage, and to provide for the registration of master plumbers, which provisions have been carried into effect. It also directs them to establish a system of inspection and supervision over all house drainage, and to appoint such inspectors as in their judgment may be necessary, and at such compensation as may be approved by City Councils. More than six months have elapsed since the number

and the compensation of the inspectors required, and the appropriation necessary for executing the Act have been laid before Councils; and yet, notwithstanding the fact that the City Solicitor has construed the provision of the law as mandatory, no effort has been made to provide the necessary funds. The law has thus been stultified, and its beneficent aims set at naught, through the prejudice, ignorance, or indifference to the public welfare of the city's legislators.

The case is not a hopeless one, for the authority of the courts can be invoked to compel a prompt compliance with the mandatory statutes of the supreme legislative body of the Commonwealth. But it is unfair and unbecoming on the part of the City Councils to provoke a conflict with a subordinate department of the city government, inasmuch as they hold in part the appointing power, and can otherwise embarrass the action of the Board of Health. These considerations, however, should not be permitted to obstruct the performance of a duty, and in due time the Board of Health should, by the power of a judicial fiat if necessary, compel the passage of an appropriation adequate for the proper execution of the law.

THE PENNSYLVANIA STATE SANITARY CONVENTION.

THE State Sanitary Convention which was held in Philadelphia the past week, whilst it has not added materially to our stock of knowledge, has accomplished a valuable purpose in diffusing amongst the community the knowledge that has already been gained of the principles of sanitary science and preventive medicine. The successful application of these principles depends, to a great extent, upon their willing acceptance by the people. Ignorance and prejudice are the stubborn barriers to the popular appreciation of the value of preventive medicine. These obstacles are to be overcome by feeding the minds of the people with well-ascertained facts and the principles drawn from them, so that a willing effort will be made to carry into effect the beneficent and health-giving procedures that have been provided through the earnest efforts of men of science.

It is to be regretted that the meetings of the convention were not more fully attended, but the interest taken in the proceedings should not be gauged alone by the numbers in attendance, for the people of a busy community will not always spare the time required for participation in an entertainment of this character, and prefer to read at their leisure an account of what has taken place. The full reports of the transactions, which appeared in the daily papers, are perhaps a more trustworthy index of the popular demand and appreciation.

SOCIETY PROCEEDINGS.

AMERICAN MEDICAL ASSOCIATION.

Thirty-seventh Annual Meeting, held at St. Louis, May 4, 5, 6, and 7, 1886.

(Specially reported for THE MEDICAL NEWS.)

SECTION ON OBSTETRICS AND DISEASES OF WOMEN.

TUESDAY, MAY 4.—FIRST DAY.

DR. W. H. WATHEN, of Louisville, read a paper on
TREATMENT OF THE MEMBRANES IN ABORTION AND IN
LABOR.

At the meeting of the British Medical Association, at Cardiff, in 1885, this subject was discussed by the best physicians of the United Kingdom, who failed to agree in many particulars as to the best treatment. Felsenreich, in the number of the *Wiener Klinik* for January, 1886, and Pajot, in the number of the *Archives de Tocologie* for February, 1886, wrote exhaustive papers on the subject. The former advocated the expectant mode of treatment, the latter opposed it. In America, the same difference of opinion and practice exists. Opinions differ as to the mode of separation of the placenta and membranes. It is urged that separation results from contraction or reduction of the placental area, causing a retro-placental clot which materially aids the process. Relative inequality in the contractile or retractile powers of the uterus and the fetal envelopes may cause separation through the trabecular layer of the decidua (Kundrat, Englemann, Freeland Barbour).

The formation of the placenta begins about the second month, and it increases in size until the end of pregnancy, but in the latter months, the union between the placenta and uterus becomes less intimate. The amnion and chorion are not in direct contact until between the end of the third and the end of the fifth month, — a fact explanatory of the phenomenon of expulsion of the fetus in an unbroken amniotic sac, with retention of the chorion and decidua within the *cavum uteri*.

In abortions after the eighth week, in premature labor, and in labor at term, the membranes should be removed, whether separated or adherent, when they are not expelled within twenty to thirty minutes, and they should be removed sooner if there is apprehension of hemorrhage, retention of the placenta, or irregular contractions of the uterus. If in abortion the woman shows symptoms of exhaustion or syncope, and bleeding continues, the shock in removing the membranes is not greater than that of tamponing the vagina.

In the statistics of Dr. Weir, of Copenhagen, expectation was followed by the retention of the decidua membranes in 1.78 per cent.; expression, 2.3 per cent. Post-partum hemorrhage occurred under the expectant plan of treatment in 5.78 per cent. of cases; expression, 2.3 per cent. Under the expectant plan of treatment, manual removal of the placenta was necessary in 1.33 per cent. of cases, and with expression 0.64 per cent. Secondary hemorrhage followed the expectant plan in 0.77 per cent. of cases; expression, 0.32 per cent.

A lady in Louisville died recently from septicæmia with pelvic peritonitis and cellulitis, caused by a decomposed placenta which had been retained over two months in an abortion at the end of the third month.

In abortions before the end of the second month, if hemorrhage ceases, no effort should be made to remove the membranes unless they protrude into the vagina and can be taken away without introducing the fingers or instruments into the uterus.

For dilatation of the cervix, the finger is the best instrument, although it may be necessary occasionally to use a metallic dilator.

Credé's method should be employed in effecting expulsion of the placenta in labor at term. Ergot should never be given until the uterine cavity is evacuated.

DR. FULLER, of Maine, after an experience of thirty-eight years, was in favor of prompt placental delivery. He is usually able to express the placenta in cases of labor at term within five minutes after the expulsion of the child. In abortions, the time required to effect the evacuation of the uterine contents is longer.

DR. WILLIS P. KING, of Sedalia, Missouri, had seen 719 cases of labor at term, and twice that number of abortions. In labor at term he employed Credé's method of expression. In abortions, when hemorrhage was severe, he practised rapid dilatation of the cervix with the finger or steel dilators. The uterine cavity was then washed out with a hot (115° - 120°) solution of corrosive sublimate (1:4000). For tampons, he uses borated absorbent cotton.

In normal labor, at term, with no lacerations of the genital tract, intrauterine irrigation was contraindicated. As the result of (1) early removal of the foetal envelopes, and (2) the prevention of a culture field for germs, he had seen no cases of septic infection in his practice for over two years.

DR. C. R. REED, of Middleport, Ohio, believed in prompt delivery of the placenta in labor at term. In nineteen cases out of twenty, he was able to deliver the placenta by a combination of Credé's methods and traction on the cord, within five minutes after the expulsion of the child.

DR. W. W. POTTER, of Buffalo, said that the terms uterine massage and Credé's method had been employed by certain debaters as synonyms. Suprapubic pressure was not Credé's method. Credé, in 1853, said that four fingers must be introduced behind the *corpus uteri*, the thumb over the anterior wall, and the placenta must be expressed just as the stone of a cherry is pinched out. He did not approve of traction on the cord, although when the traction is slight no harm usually results. He called attention to the numerous sequelæ of abortion, and the importance of effecting early evacuation of the *cavum uteri*.

DR. JOHN MORRIS, of Baltimore, advised the early removal of the placenta in labor at term. He never allowed the placenta to remain longer than twenty minutes after the birth of the child. He distinguished between abortions, the result of natural processes, and those induced by medicines and instruments. In induced abortions, it is necessary to practise rigid antisepsis, and the prognosis is less favorable. In so-called "natural" abortion, he was inclined to watch and wait for a spontaneous evacuation of the uterine contents. Antiseptics are seldom required under these conditions. Certainly, intrauterine irrigation is not indicated. He never exhibited ergot before the uterine cavity was emptied except in cases of "bleeders."

DR. HUNTER, of Minneapolis, desired to enter a pro-

test against the indiscriminate use of intrauterine irrigation. He had recently observed the fatal termination of a case in which the uterine cavity had been irrigated. He now swabs out the *cavum uteri*—when indicated—with a mixture of iodoform, carbolic acid, and glycerine. He had seen disastrous results follow vaginal irrigation with a corrosive sublimate solution, 1:2000. It was necessary to employ the bichloride of mercury with extreme caution—if at all.

DR. W. W. POTTER, of Buffalo, read a paper entitled

SOME OBSERVATIONS ON THE UTERINE SOUND; WITH ESPECIAL REFERENCE TO ITS PLACE IN GYNECOLOGICAL THERAPEUTICS.

After a brief sketch of the "rise and progress" of the uterine sound, he offered certain criticisms upon its indiscriminate and careless employment. The sound should be employed only as a last resort in junctures of extreme doubt. The supersensitive endometrium may be irritated, and active inflammation (metritis, parometritis, salpingitis, ovaritis, etc.) may result. Pregnancy may be interrupted. As the remote result of the inflammation excited by the sound, the various hysteroneuroses are produced.

Tactile sensibility admits of almost infinite development. The sound is nothing less nor more than a prolonged finger, and should, therefore, be dispensed with wherever the finger itself can be made available, provided it furnishes with accuracy the information sought. It certainly should never be used with any force whatever, its own weight being sufficient to carry it to any place where it can be made of practical service. The *os uteri* should always be patulous to even a marked degree whenever it is employed, and the endometrium should be free from any undue tenderness when touched by the sound. The delicate virgin silver probe of Sims is better and safer than Simpson's sound. This should not be passed during a first interview, if it is possible to avoid it, nor until one has become quite familiar with the topography, and all the peculiarities of the sexual tract of his patient; nor, further, until it is first wrapped with a film of absorbent cotton, to serve as a cushion to the metal. It should never be used as a repositor. Manipulation in the genupectoral position will suffice to effect reduction of dislocation, when such rectification of position is indicated.

DR. GEO. F. HULBERT, of St. Louis, thought it impossible to acquire adequate knowledge of pathological conditions of the uterus without the use of the sound.

DR. ENGELMANN, of St. Louis, had given up the use of the sound, and, to a degree, that of the speculum.

DR. GERHUNG, of St. Louis, thought that the sound should never be used as a uterine repositor when adhesions exist. When the uterus is perfectly movable, and absolutely no adhesions are present, the uterus may be replaced by a repositor. He occasionally employed the sound for other purposes. He thought the film of cotton placed around the sound a dangerous precaution; fluids may be forced through the tubes on account of the plugging of the cervical canal. The *tactus eruditus* must be acquired before the sound can be dispensed with. In the diagnosis of cervical lacerations, and certain pathological conditions, he gained more information by means of his index finger than by the use of the speculum.

DR. A. C. MILLER, of Ohio, opposed the views advocated by Dr. Potter. Digital examination was the cause of cellulitis, as well as the sound. In the hands of an expert, the sound is a perfectly safe instrument.

DR. KING, of Missouri, thought the inflammatory disturbances, ascribed to the sound, were frequently of septic origin. Germs from the vagina were introduced along with the instrument. Cleanse the vagina thoroughly before introducing the sound. Latent vaginal gonorrhoea is a frequent condition, and the gonococci cause the mischief attributed to the sound.

DR. H. O. MARCY, of Boston, read a paper entitled

THE PERINEUM AND ITS RESTORATION.

When the rupture is incomplete it does not involve the sphincter; with the structures rendered tense by two fingers in the rectum the tissues are very carefully separated subcutaneously, lifting up to a considerable depth the vaginal mucous membrane with a layer of substructures, as widely as may be necessary to restore the parts to their normal condition. This is carefully determined upon before the operation. The anterior flap cut without opening into the vagina is then lifted and the deeper structures are approximated by pins introduced parallel with the rectum and so fixed in their peculiar construction that they look not unlike a safety pin in two parts and thus hold the tissues enclosed without strain. Two, three, or more are introduced in this manner and the external wound now reversed, until its edges are antero-posterior instead of transverse, and are carefully approximated by the over-and-over tendon suture. The pins are removed, as may be judged requisite, in from six to ten days.

In complete rupture the operation varies only in the lateral dissection of the parts, which are then closed by three lines of continuous tendon suture, commencing upon the rectal side, where they are a little deeper and then on the vaginal side last of all, closing as in the operation for the restoration of the incomplete rupture, the perineal or external side of the triangle. These reversed surfaces are then held in opposition by the parallel pins, and thus adjusted without strain, the perineum is restored to its normal depth and strength. The author has now amply demonstrated by an experience of some years and many operations the value of his methods, and he claims not only to render a far better result but to simplify greatly an operation often demanded, and which must come within the range of wise procedure by the average practitioner.

Dr. Marcy advises the emptying of the rectum as early as the second or third day after the operation, and never allows an accumulation of feces to press upon and interfere with repair.

DR. GEHRUNG, of St. Louis, praised the ingenuity of Dr. Marcy's modified pin suture and described his own method of perineal repair. He never employed the circular silver suture.

DR. S. C. GORDON, of Maine, for the last one and one-half years used the continuous catgut suture except in cases of lacerations extending into the anus.

DR. WATHEN, of Kentucky, thought Dr. Gehrung's lead plates and sutures would cause too much local disturbance and pain. The same objections held with reference to Dr. Marcy's suture. He thought Dr.

Marcy's operation was better than Dr. Emmet's. The latter is difficult to understand.

DR. H. O. MARCY, of Boston, said his "modified pin" gives less pain than the ordinary silver wire suture. He exhibited ligatures prepared from kangaroo's tail, and treated with chromic acid after Lister's method. He had introduced this ligature. He had tried ligatures made from the tendon of the tail of the South Carolina fox squirrel with success, and was thus led to send to Australia for the tendon of the kangaroo's tail. These ligatures were kept in bottles two feet long.

DR. E. W. CUSHING, of Boston, read a paper on

THE PATHOLOGY OF EROSIONS (SO-CALLED) OF THE OS UTERI.

The pathological propositions advanced were as follows: That the customary divisions of erosions is erroneous. That the views advanced by Ruge and Veit are essentially correct. The pathology of ectropion was also considered, and exception taken to the views of Emmet as to the relative importance of lacerations in causing the eversion.

Dr. Cushing stated that the glandular formation in the mucous membrane is the immediate cause both of the symptoms and of the eversion, that the condition spreads far over the cervical tissues which should be covered by flat epithelium. He described the manner in which these new-formed glandular cavities become cancerous and invade the surrounding parts, and advised in general that erosions, when not yielding readily to medical local treatment, be freely curetted or if inveterate and recurrent be thoroughly excised.

DR. A. C. MILLER, of Ohio, thought the pathological conditions of the cervix described by Dr. Cushing, were referable to the bloodvessels of the part. The veins are frequently varicose. He had effected cures by putting a small rubber band around the neck, near the vaginal insertion. These pathological states of the cervix are examples of malnutrition.

WEDNESDAY, MAY 5.—SECOND DAY.

DR. FRANKLIN H. MARTIN, of Chicago, read a paper entitled,

ELECTROLYSIS IN GYNECOLOGY.

He had used electrolysis with beneficial results in the following conditions: Chronic cellulitis and peritonitis, chronic ovaritis and salpingitis, chronic subinvolution of the uterus, chronic hyperplasia of the uterus, uterine stenosis, laceration of the cervix (removing cicatricial tissue), ovarian cysts, periuterine hæmatocele, uterine fibroids. It is the chemical effect of the galvanic current that he sought, therefore he terms the treatment electrolysis. He seeks to remove pathological tissue by breaking it up into its constituent elements, when its absorption is accomplished or facilitated. There is a tendency to electrolytic action in all tissues through which a galvanic current of high tension is passed, but it is not so active in normal as in pathological tissues. Normal tissue has a tendency to repair itself immediately, and replace that which might have been absorbed by the effect of the electrical current. Pathological tissue, as a rule, has not this power.

The current that he uses is one of small quantity and high tension. To get this current, he used a small Bunsen element of zinc and carbon. As a fluid, he uses a weak

solution of sulphuric acid and bichromate of potassium. In applying a galvanic current for the purpose of permitting the absorption of an inflammatory exudate, or a pathological growth of any kind, he seeks to pass the current through the centre of the largest mass of such tissue.

DR. ELY VAN DE WARKER, of Syracuse, acting upon the suggestions of Dr. Freeman, of Brooklyn, had used electrolysis in the treatment of a case of rapidly growing uterine fibroid. The woman was young, married for three years. The tumor extended upward to the umbilicus. No menorrhagia had been observed. The patient was anesthetized, two needles were inserted into the tumor, and 10, 15, and 20 zinc, carbon cells were employed. The treatment, notwithstanding the narcosis, was painful. A high temperature was noted about three days subsequently, which proved to be caused by the formation of an abscess. This abscess subsequently ruptured.

The patient returned at the expiration of three months, and electrolysis with twenty cells, through one-half hour, was practised. Three months ago, no appreciable diminution in the size of the tumor was noticed. A slight reduction in size followed the first treatment, possibly due to the abscess. Negative results were obtained in two other cases of uterine myomata.

In his hands, this method of treatment had been painful, and not devoid of danger.

DR. ROBERT NEWMAN, of Brooklyn, said that weak currents should be employed to produce resorption. The use of from twenty to eighty cells is criminal. Failure in the treatment with electrolysis is due to the facts (1) that medical men expect too much, and (2) that they do not know what they are doing. Electrolysis has a wide field of usefulness in gynecology. Its function in extrauterine pregnancy is established. He expects much from the procedure in the treatment of fibroids. He would insert one needle into the tumor, and place the other pole on the abdomen. Then two, three, four, five, but never more than six cells should be employed. Semmel, of Mexico, and Mundé, of New York, had practised with advantage this method of treatment.

In carcinoma and sarcoma, favorable and unfavorable results had been obtained. The growth can be resolved into its chemical constituents, and when the cancer or sarcoma germs, whatever they are, have not gone beyond the limits of the neoplasms, the diseases can be cured. When the germs have invaded the system, of course, the resolution of the local disorders has little influence on the progress of the diseases. In carcinoma of the mammary gland, he had, in some cases, cured the disease.

DR. HULBERT, of St. Louis, believed in the potency of electrolysis as a method of treatment. Dr. Van de Warker had used electrolysis without a galvanometer. As well give strychnia without measuring the dose, as use electricity without a galvanometer. He had recently used electrolysis in the treatment of a case of pelvic abscess. After evacuation of the pus, he washed out the cavity with a boric acid solution, and treated the walls by electrolysis. Complete resolution was effected.

DR. T. A. REAMY, of Cincinnati, asked how much evacuation of the pus cavity and how much electrolysis had to do with the cure of Dr. Hulbert's case?

DR. HULBERT thought evacuation of pus was a factor, but not the sole nor the most important factor, in the resolution of the thick abscess walls.

DR. GEORGE J. ENGLEMAN, of St. Louis, was surprised that Dr. Van de Warker, Dr. Newman, and others used electrolysis without a galvanometer. He heartily endorsed the remarks of Dr. Hulbert. The employment of weak currents, he thought was an error.

Dr. Martin had cured a case of uterine fibroid after forty-five *séances* of forty minutes duration. Dr. Englemann cured such cases after five *séances* of five minutes duration, without anæsthesia. He followed the precepts of Apostoli, of Paris. The negative pole was introduced within the tumor to the extent of six or seven inches, and then a current of from forty to one hundred *milleampères* was employed for five minutes. A soft sheet of pliable metal, covered with a sort of punk, was placed over the abdomen and connected with the positive pole. He narrated the history of a dispensary case, in which a fibroid tumor extended upward above the navel. After three *séances* of five minutes duration, scattered over a period of three weeks, the tumor was found to be one inch below the umbilicus.

DR. S. M. JOHNSON, of Kansas City, was then

NOMINATED FOR CHAIRMAN

for next year.

DR. GUSTAV ZENKE, of Cincinnati, then read a paper entitled

PUERPERAL FEVER, AND THE EARLY EMPLOYMENT OF ANTISEPTIC VAGINAL INJECTIONS.

He considered the value and necessity of antiseptic, or simply warm water injections, as recommended for prophylactic purposes in normal cases of labor. Washing out the vagina immediately after normal labor, he thought meddlesome midwifery; it did no benefit, prevented nothing, and might do harm. In prolonged or instrumental labor, delivery, if the hand has been introduced, or if injuries have been sustained, vaginal injections are always, uterine injections rarely, indicated.

DR. HULBERT, of St. Louis, said that when he first took charge of the Female Hospital, Arsenal Street and Manchester Road, there was an epidemic of puerperal fever with a mortality of twenty-five per cent. Fifty per cent. of all the cases suffered from septicæmia. During the last year, with antiseptic vaginal douches in all cases, and intrauterine irrigation when specially indicated, the mortality from puerperal fever was three-fourths of one per cent.

DR. KING, of Missouri, thought carbolic acid a poor antiseptic when used in ten per cent. solutions. A five per cent. solution has little influence on micro-organisms. He preferred the bichloride of mercury. Vaginal injections are sometimes dangerous. When the tube is introduced within the vagina, the circular muscular tube may contract, and the fluid may be forced into the *cavum uteri*, through the tube, into the peritoneal cavity. In intrauterine irrigation, it is necessary to secure an adequate return flow.

DR. SARGENT, of St. Louis, urged the employment of the double catheter for intrauterine irrigation.

DR. C. R. REED, of Ohio, narrated the histories of four cases of puerperal fever in primiparæ, occurring in

his practice in the month of April. Three cases survived under the opium and quinine treatment. One case, passing out of his hands, died. He did not believe in antiseptic midwifery.

DR. T. A. REAMY, of Cincinnati, entered a protest against the use of vaginal injections in the *puerperia* following strictly normal labors.

DR. W. W. POTTER, of Buffalo, believed in the prophylaxis of puerperal fever. When the temperature reaches 100° F., during the *puerperium*, he becomes suspicious of a retained shred of membrane or decomposed clot of blood, and, in many cases, resorts at once to intrauterine irrigation with Chamberlain's glass tube.

THURSDAY, MAY 6.—THIRD DAY.

DR. J. F. T. PAYNE, of Texas, reported,

A REMARKABLE CASE OF CONGENITAL ABSENCE OF THE OSTIUM VAGINÆ, AND DELIVERY BY THE ANUS.

On April 24, 1885, late in the evening, Dr. George S. Sykes, of Galveston, was called to attend Mrs. H. T., who was in labor. She was thirty-five years old, and bore every sign of perfect physical development. The midwife said she had been in labor since the preceding midday. The bag of waters had been ruptured early in labor, and the patient was very much prostrated by her protracted and inefficient efforts to expel the fetus. Examination revealed entire absence of the vaginal orifice, and the finger, passed along the perineum, sank into the distended anus, and encountered the fetal head just within the opening. The anus was dilated to about the diameter of three inches. Never having met with such a case, the attending physician sought the advice of Dr. J. F. T. Payne.

Examination confirmed the diagnosis. The fetal head was found within the rectum, arrested at the distended and resisting anus. A clammy skin, sighing respiration, rapid, feeble pulse told the story of strength wasted by a fruitless labor. Uterine inertia; the anus though considerably dilated, was insufficiently so to admit the passage of the head, and was rigid and unyielding. The indications were too clear to admit of a doubt as to the treatment. Chloroform was administered, a Simpson's obstetrical forceps applied with comparatively little difficulty, and by moderate effort the head was promptly delivered. The shoulder and trunk were brought into the world by a *vis a tergo*, exerted by squeezing and downward pressure on the uterus through the abdominal parietes. The placenta was speedily expelled by expression. There was no apparent laceration of the anal sphincters. There was no unusual hemorrhage at the time of the accouchement, nor was there subsequent oozing. Firm tonic contraction of the uterus quickly followed a dose of ergot. The anus regained its normal characteristics within a few hours. Subsequent treatment: Rest, antiseptic irrigations *per rectum*. Patient sat up on the sixth day, and entered upon her accustomed domestic vocations at the end of the second week.

On the eighth of October, five months and sixteen days after her accouchement, Dr. Paine examined the case thoroughly, and found complete absence of the ostium vaginæ. All the parts within the vulva presented the characteristics of virginity—the clitoris, normally developed and situated; the vestibule and posterior commissure bore no signs of having been stretched,

distorted, or lacerated by childbirth; the urethra was in its proper place; the nymphæ and labia majora were in every respect natural in their virgin symmetry of outline. Two fingers were readily introduced into the rectum, and passed upward along the anterior rectal wall for a distance of about two inches, when it was clearly appreciable that the surface gradually sloped forward and upward, and merged into the anterior vaginal wall, which, at this point, was natural in its anatomical relations. From a half to an inch below the os uteri, could be distinctly felt the free edge of a membranous curtain which represented the upper third of the recto-vaginal septum. There was nothing abnormal either in the size or position of the uterus, or in its relation to the vagina. Examination with the speculum fully confirmed the revelation of the digital exploration. The most painstaking investigation failed to detect the slightest trace of cicatricial tissue. The conclusion was that the malformation was congenital.

This woman has borne three children, all at full term, and well-developed but dead. The cause of death seemed to lie in the early drainage of the amniotic fluid and the protracted labor. Nothing noteworthy occurred during the day of the accouchement, except continuance beyond ordinary limit, and the exhaustion which, as a natural consequence, ensued. Her labors had lasted, she said, about two days; but had not, in any case, been followed by fever, pain, abnormal discharge or other evidences of inflammatory action. Her recoveries had been uniformly short; sitting up on the sixth day, and resuming her ordinary duties at the end of the second week. Menstruation has always been regular (except during pregnancy) and painless. Sexual desire and its gratification during coitus were in every respect satisfactory. She had never been made aware, either by the exit of the menstrual flux, the method of sexual intercourse, or even the strange manner of her accouchement, that she was different from other women. Her husband, after being closely questioned, asserted most positively that he had never entertained the faintest suspicion that there was anything the matter with his wife out of the usual order of things.

DR. WILLIS P. KING, of Sedalia, Mo., offered some remarks on

PELVIC INFLAMMATIONS AND ACCUMULATIONS.

Collections and accumulations within the pelvic cavity of inflammatory origin are serous or purulent. Serous collections are situated high up and are really examples of encysted peritoneal transudations. In these, the prognosis is less favorable than in circumscribed collections of pus. Pelvic abscesses are usually situated on a lower level near or in the *cul-de-sac* of Douglas. These he treated by antiseptic incision through the vagina, continuous drainage, and antiseptic packing of the vagina. Sometimes he opened these abscesses by Hilton's method.

DR. FRENCH, of Minneapolis, limits the treatment by aspiration to serous effusions. He recommends divulsion rather than incision, on account of hemorrhage. He exhibited a self-retaining, horned drainage tube. In a certain class of cases of pelvic abscess, he insufflated the abscess cavity, after the evacuation of pus, with iodoform. He used an insufflator with an aurist's mouthpiece.

DR. W. W. POTTER, of Buffalo, suggested for continuous drainage the self-retaining catheter of Nélaton. He thought Dr. Gehrung's ingenious insufflator the best he had seen.

DR. HARVEY, of Indianapolis, had employed the peroxide of hydrogen in the cleansing of the cavities of pelvic abscesses with benefit. The cessation of effervescence indicates the time when the pus has disappeared. He had now under treatment an abscess with fifteen sinuous tracts communicating with its cavity, which is improving under irrigation with peroxide of hydrogen.

DR. S. C. GORDON, of Maine, agreed with Dr. Potter that the use of the sound is the most common cause of pelvic abscess. Prevention is better than cure. It is possible to prevent the formation of pelvic abscesses. Every case of pelvic cellulitis ought to terminate within seven or eight days.

His treatment of pelvic cellulitis is by quinine and opium—large doses (no aconite, veratrum viride, or cardiac depressants); stimulants, food, rest; third to fifth day, apply large blister over the lower part of abdomen. In nine out of ten cases, it is possible by this means to prevent the formation of an abscess. This doctrine is essentially that taught by Peaslee since 1856. When an abscess does form, it should be immediately evacuated.

DR. HAGGARD, of Nashville, referred to the importance of the prophylaxis of peri- and para-metritis. The use of the sound and the indiscriminate employment of the applicator are responsible for a large number of these cases.

NEW YORK SURGICAL SOCIETY.

Stated Meeting, April 26, 1886.

THE PRESIDENT, CHARLES MCBURNEY, M.D.,
IN THE CHAIR.

TALIPES EQUINO-VARUS; CUNEIFORM OSTEOTOMY.

DR. POORE exhibited a patient, aged ten years, on whom he had performed a cuneiform osteotomy for congenital talipes equino-varus. The patient had never had any treatment for the deformity, which was confined to the left foot. There was marked adduction of that portion of the foot anterior to Chopart's joint, with great rigidity of the tissues on the inner side of the foot; so that all attempts to change the position of the anterior portion of the foot failed, notwithstanding the use, on several occasions, of Bradford's instrument for forcibly rectifying this deformity. There was also marked stiffness of the ankle-joint, so that it was impossible to obtain any motion at that articulation, with the use of any justifiable force. Under these circumstances, Dr. Poore determined to remove a V-shaped piece from the outer aspect of the foot. The operation, as advocated by Davy and others, consists of removing a wedge of bone, base outward, including portions of the cuboid, scaphoid, and os calcis, and the head of the astragalus, thus destroying most of the tarsal joints.

On the patient shown, a wedge was removed from the anterior portion of the os calcis and from the neck of the astragalus, of sufficient size to permit of the anterior portion of the foot being brought into a straight line with the rest of the foot. In these cases the anterior portion of the os calcis is elongated, and the neck

of the astragalus occupies a more anterior position. The operation does not open any of the tarsal articulations, does not shorten the foot anterior to Chopart's joint, and leaves it in a more useful condition. The patient walks with but a slight limp, and is regaining motion in the ankle-joint. He has no pain about the foot. The wedge of bone was removed by means of a thin chisel.

COMPOUND COMMINUTED FRACTURE OF THE THIGH.

DR. GEORGE A. PETERS read the following extracts from the case-book of St. Luke's Hospital:

August Gross, æt. sixteen, a native of Germany. Admitted to St. Luke's Hospital, April 22, 1885, in service of Dr. Peters. Personal history negative, except of cardiac disease. He had a loud systolic murmur at apex of heart, and the beats were somewhat intermittent. About five o'clock P. M., while cleaning a horse, he was kicked, and knocked under the horse and trampled upon.

On admission, there was found a compound fracture of the right femur, with the external opening at the upper and posterior part of the thigh. The finger detected a sharp end of the lower fragment very easily. He had also a lacerated wound of the anterior surface of the left leg, which was undermined at the upper angle for about two inches, and, in addition, a contused scalp wound.

At 9.30 P. M. he was etherized, Dr. Peters operating. The surface of the limb was thoroughly cleansed and rendered aseptic. An incision two and a half inches long was made over the external opening down to the bone. The fracture was then determined to be comminuted, with a large portion of the anterior surface of the shaft of the femur chipped off, but attached at its lower end by the periosteum. This was removed, and found to measure six inches in length, by one inch in width. In its broadest part it included a little over one-half of the medullary canal. One other very small piece was found and removed.

The two bevelled surfaces of the femur were then united by two silver wires, considerable difficulty being experienced in this step of the operation. The wires were twisted, and the ends left projecting from the external wound. A rubber drainage-tube was inserted, and the incision was closed with a continuous catgut suture. The wound was well dusted with iodoform, and a dressing of iodoform gauze, bichloride gauze, borated cotton, and a Lister bandage, applied. The foot was slightly everted, and a long Lister splint, from toes to thorax, bandaged on. Buck's extension, with a weight of five pounds, was ordered, and the patient placed in Dr. Ludlow's modification of Dr. Crosby's bed. The wounds on the left leg and scalp were dressed with iodoform gauze, bichloride gauze, and borated cotton. Patient passed a pretty comfortable night, needing only a small dose of morphine.

April 25. The wound was redressed. There was a very free discharge, but no collection of pus. The temperature rose to 103° on the afternoon of the 25th, and to 103.5° on the 26th and 27th. These were the highest points reached during the entire course of the case. Repeated examination of the urine gave no evidence of renal trouble. The cardiac murmurs were mitral obstructive and regurgitant, and aortic direct and regurgi-

tant. The wounds were dressed every other day in the same manner as at first. The drainage tube was removed May 11. At that time the wound had gaped, and there was free drainage.

June 18. There was considerable firmness in the thigh.

July 21. Wound was dressed about once a week. There was a considerable amount of union, and Dr. Peters removed almost all the wire. On July 22 a spica of plaster of Paris was applied from ankle to ribs, and the patient was allowed to be up in a wheel-chair on the 24th.

28th. Some more wire was removed, but a little was left in the bone. The wound was healthy. A new splint was applied.

August 5. He was allowed upon crutches.

7th. Patient turned quickly, and foot slipped forward from a sling which he wore suspended from his shoulder, which caused him considerable pain. This was relieved by extension.

9th. There was no increase of discharge from the wound, and the extension was removed August 13.

30th. There were two large sinuses leading down to an area of exposed bone 2 x 1 inches. The wire could not be detected.

September 8. There was considerable bony union. A new splint was applied. September 10th he was allowed to sit up in a chair.

October 23. Loose bone was detected through the sinus.

December 2. The plaster splint was removed. The bone was found firmly united. The trochanter rotated in its normal arc. The limb was washed and bandaged, and coaptation splints applied.

14th. A piece of the lower fragment, measuring $2\frac{1}{2}$ by $\frac{3}{8}$ inches, was removed from the sinus. It contained one of the drill holes made by Dr. Peters. The following day an irregular fragment of bone half an inch long and a piece of silver wire were removed. Examined by Drs. Peters, Abbe, and Bangs, who found the bone solid, and fusiform in shape. They were unable to feel the site of fracture. There was $1\frac{3}{4}$ inches shortening.

17th. He was allowed to take a few steps on the right foot.

18th. All splints were removed, and a simple dressing applied to the wound, which was healing nicely.

22d. Passive motion of the knee was begun.

24th. The flexion of the knee, without pressure, equalled 45°. Patient was instructed to persevere in passive motion of knee, and discharged cured. In hospital eight months.

Dr. Peters exhibited the patient, and also the pieces of bone removed, to the Society. He stated that there was now about an inch of shortening. The good result in this case was largely due to Dr. Ludlow's modification of Dr. Crosby's fracture-bed, which is used at St. Luke's Hospital.

DR. JOSEPH C. HUTCHISON, of Brooklyn, N. Y., read the history of

A CASE OF CLOSURE OF THE ORIFICE OF THE CYSTIC DUCT BY A GALL-STONE; ABSCESS OF THE GALL-BLADDER; CHOLECYSTOTOMY; RECOVERY.

(See page 569.)

DR. T. M. MARKOE remarked that he now had a case

which he is carefully watching with a view to operating. It is quite different from Dr. Hutchison's, however, in the fact that the distended gall-bladder can be made out very clearly. He thought jaundice is rather the exception than the rule in these cases.

DR. C. K. BRIDDON said that, in the history of the case, Dr. Hutchison had mentioned that an irregular practitioner had made the diagnosis of neuralgia of the stomach. Such cases as this are often so obscure, however, that he thought the practitioner might be excused for his mistake. It is extremely difficult sometimes to differentiate the paroxysms of pain caused by a gall-stone from neuralgic affections of the stomach.

DR. HUTCHISON stated that he had not intended to cast any reflection upon the practitioner referred to.

PERITYPHLITIS.

DR. H. B. SANDS said that as there seemed to be no further desire to discuss Dr. Hutchison's paper, he would direct the attention of the Society for a little while to the subject of perityphlitis. Within the last four months a number of cases had come under his observation, and they had had the effect of impressing very strongly upon his mind the necessity of absolute rest in the treatment of this affection.

He could recall the case of a physician suffering from perityphlitis, who was doing fairly well, but who, while the disease was in progress, was allowed to take several cathartic medicines, each of which only aggravated the trouble. Finally, after a copious passage, produced by an enema, he became collapsed, and death soon followed. The autopsy was made by Dr. Peabody, but no cause was found for the existing perforation of the appendix. In this case it was very evident that for a while the difficulty had been confined within narrow limits; and it could not be doubted that a better chance of recovery would have been afforded if the patient had been kept absolutely quiet, and opium given, instead of cathartics.

The second case referred to, was one which he saw in consultation with Dr. Ball. The patient was over sixty years of age, and he was called in because the symptoms were supposed to be those of strangulated hernia. It was true that the man had a hernia of the right side; but the hernial sac was so flaccid that the present trouble could not be referred to this. The symptoms, also, were not exactly those of strangulated hernia. The case was in reality one of perityphlitis; but the patient was allowed to get up and go down town. The result was that peritonitis set in, and he died a short time afterward. The post-mortem examination showed perityphlitis, with perforation of the vermiform appendix, and an empty hernial sac on the right side. This case, also, he thought, emphasized the importance of rest and opium in perityphlitis.

The third case, like the first, was that of a physician. He had signs of intestinal obstruction, during the progress of peritonitis, and the only reason why it was supposed the trouble began in the vermiform appendix was because there was slight pain in the right inguinal region. Later the abdomen became distended, and the temperature ran up to 104° F. Dr. Janeway was in attendance, and treated the case by rest, hot fomentations, and opium. The temperature, which had ranged from 102° F. to 104° F., was then brought down to 101°, but the pulse continued rapid. Dr. Sands was called

in on the fifth day. The belly was then enormously distended, but no local swelling could be detected. He did not urge an operation, as he thought it would offer but little chance of recovery. A fatal result ensued, and the autopsy showed that death was due to universal peritonitis, originally caused by perforation of the vermiform appendix. The pus was not enclosed, as is usual in abscesses of this kind. Dr. Sands thought it was doubtful if the life of the patient could have been saved by an operation, if it had been performed at the time when surgical aid was called in. The only chance for a successful operation in this case, he believed, would have been an early laparotomy, if an early diagnosis had been possible.

The fourth case he saw in consultation with Drs. Loomis and Conway, and he operated on the fourteenth day of the disease. The patient was a young man of twenty-one, who was very stout. A deep-seated tumor had been discovered, and it was accompanied by sweating, rise of temperature, and other symptoms of perityphlitis. In this operation he met with the accident, for the first time in his experience, of cutting the intestine; and this, notwithstanding the fact that a hypodermatic syringe was first resorted to, with the effect of withdrawing some pus. When the tumor had been arrived at, all who were present had the impression that a piece of intestine was being dealt with, and it seemed to Dr. Sands that there was a portion of the cæcum in the wound, instead of the usual abscess cavity. He made a cut with the scissors, and the impression conveyed to his mind was that he was cutting intestine. From the opening there came pus and air, but no feces. The next day (Sunday), however, feces made their appearance, and by Monday night they were flowing away in large quantity. This free flow of feces continued for about ten days, but at the end of two weeks it had ceased altogether. The patient got entirely well in three weeks. Dr. Sands said that in this instance the hypodermatic needle must have passed through both walls of the intestine before penetrating the abscess.

He then mentioned two cases which he had seen very recently. One of these was that of a young lad, the son of a physician. There were symptoms of peritonitis, in connection with perityphlitis, and after discussing the subject thoroughly with Dr. Sands, the father declined to have an early operation performed. The case went on pretty well for a week, but on the ninth day the patient became much worse. There was subnormal temperature, distention of the abdomen, and vomiting, and the condition was in every way alarming. Dr. Sands operated in the usual way April 24, and the abscess cavity was found to contain pus and feces. The patient, when last seen, was convalescent.

In a case in which he operated on Sunday, April 25, the patient was a lad of fourteen. The first symptoms had appeared just one week before, and he first saw him on Wednesday, when he thought there were signs of perforation on the side of the peritoneum. There was marked tympanites, and he was unable to make out the presence of a circumscribed tumor; although Dr. A. H. Smith, who had been in attendance previously, said that he had discovered one when the abdomen was not so much distended. Dr. Sands saw the case again on Saturday, when the condition was found

to be very bad. As in the previous case, he debated very carefully whether to cut in the median line or at the side, and thought it preferable to make the incision in the latter position. Accordingly he operated at two P. M. on Sunday (Dr. Hall assisting), but at six P. M. on the same day he was called in to see the patient die. At the time of operation, when the layers of the abdomen were cut down upon, about half an ounce of pus was seen to flow from a small opening, and the lining of the abscess cavity was found to be very smooth. The abscess was doubtless in the cavity of the peritoneum, and the case, as had been suspected, was one in which perforation had occurred toward the serous membrane, and not one of perityphlitis, amenable to the usual operation.

In closing, Dr. Sands said that he wished to call attention especially to the question whether in these cases laparotomy was preferable to the ordinary operation for perityphlitis. When peritonitis had become general, laparotomy, in his opinion, offered no hope of saving life.

DR. BRIDDON said that he was inclined to doubt whether Dr. Sands had in reality wounded the intestine in the case in which he believed this accident to have occurred. If he had done so, he did not think the patient would have recovered so readily.

DR. SANDS replied that it was quite possible to have a simple wound of the intestine, and have a rapid recovery also. A remarkable example of this had occurred in his own hospital experience. A young man was accidentally shot in the abdomen with a thirty-eight calibre ball, which entered the body on the right side of the median line, close to the pubes. The house-surgeon probed for the ball unsuccessfully; but obtained no feces. The wound was received at twelve minutes past twelve, and at twenty minutes of six Dr. Sands operated after probing with the same result as the house-surgeon. He made an incision as far as the spine of the ilium, about five inches altogether; but did not succeed in finding the ball. It was noticed, however, that there was some deep emphysema, to which Dr. Dennis has lately called attention as a sign of perforation of the intestine. The external abdominal ring was somewhat patulous; but not more so than is often found to be the case. The operation was done on a Wednesday. On Thursday Dr. Sands saw the patient again, when he appeared to be in no danger. On Friday, however, a flow of feces commenced. He pulled out the drainage tube, which he had left in position; but was unable to tell where the feces came from. Afterward, however, air and feces came distinctly from the external abdominal ring; and the bullet must, therefore, have entered the abdomen through this natural opening. The patient got well, and this case was cited, he said, in order to show that a temporary fecal fistula may sometimes be established.

Dr. Sands then went on to say that the question which he had raised was, whether, in the experience of the members present, laparotomy had ever been successful in cases in which there was perforation of the vermiform appendix, and general peritonitis. Dr. Burchard, he believed, had claimed that life could sometimes be saved under these circumstances.

DR. BRIDDON said that he had seen autopsies in cases in which it seemed to him that laparotomy might

have a chance. These were made in cases of sudden death following symptoms of perforation; the conditions found being gangrene and rupture of the appendix, without any conservative process.

DR. R. J. HALL said that there were some cases commencing like perityphlitis which were relieved by cathartic treatment. Two years ago he had met with such a case. The patient was a boy, who had a local tumor, and suffered from a chill, followed by rise of temperature, and other symptoms of perityphlitis. He expected to have to operate, but concluded for the time being to wait, and give opium. The patient, to his surprise, got better, instead of worse; though the tumor still remained. Finally he gave an enema, and after free evacuation of the bowels the tumor disappeared. It had, therefore, been caused by impaction of feces in the cæcum, instead of perityphlitis.

DR. SANDS said that he thought we should be very careful to remember that the case mentioned by Dr. Hall must be of a very exceptional character. Cases of this kind were nothing like so common as cases in which perityphlitis is mistaken for impaction of feces in the cæcum. Then, again, it must not be forgotten that cecal impaction may eventually result in perityphlitis. It is better, therefore, in any doubtful case, first to treat the patient with opium, and await future developments.

DR. HALL then remarked that his patient had all the symptoms indicating the presence of an inflammatory process.

FOREIGN BODY IN THE CESOPHAGUS.

DR. A. G. GERSTER presented a specimen which, he said, constituted an interesting contribution to the subject of foreign bodies in the cesophagus. It was taken from a child twelve months old, in whom signs of respiratory difficulty, apparently in the larynx, first showed themselves at the age of six months.

About two months before Dr. Gerster saw the patient, a specialist in diseases of children was called in consultation, and made the diagnosis of a tumor, with a broad pedicle, in the larynx.

There was increasing difficulty in respiration, with occasional aggravated paroxysms; and when the case came under his observation, he found that there was frequent respiration, and that the dyspnoea was principally expiratory, there being little difficulty in inspiration. Owing to the paroxysms set up by the attempt to make a laryngoscopic examination, it was impossible to get a view of the parts.

Up to this time the general condition of the child had been good; but there was now considerable trouble in deglutition, and it began to fail appreciably. The most careful inquiry failed to elicit the history of any foreign body having been swallowed.

In view of the frequency of the attacks of suffocation now met with, he advised an exploratory tracheotomy; to which the parents consented. On account of the exceedingly short and thick neck of the infant, he was obliged to select the upper operation; but when the trachea was opened, he was disappointed at not finding the least improvement in the respiration. A soft catheter was introduced into the trachea and the bronchi, but no abnormality could be detected.

One very curious thing, however, was noticed. When

a canula was introduced into the trachea, the difficulty of respiration increased; but as soon as he placed his finger over the mouth of the canula the breathing became easier.

Fearing to keep the child, who was in very bad condition, longer under the influence of anæsthetics, he ordered the canula, with its orifice plugged, to be kept in position; his design being to keep the trachea open, and on a future occasion to make a more careful examination. The next day, however, pneumonia set in, and in three days death resulted. At the autopsy the larynx was found to be entirely normal, but a little lower than midway between the cricoid cartilage and the bifurcation of the trachea there was a triangular defect of the trachea, and at the seat of this defect the sharp edge of a metallic body projected into the trachea for about three millimetres. The foreign body was a flat brass button, three-quarters of an inch in diameter.

Corresponding to the defect in the trachea was another defect in the cesophagus, circular in shape, and about one centimetre in diameter. The foreign body was embedded in the tissues between the trachea and the cesophagus; being held in position precisely like a picture by its frame. The ulcerative process had evidently terminated by complete cicatrization. No active inflammation was found in progress at the time of death; but the tissues were considerably thickened by former inflammatory processes.

DR. GERSTER said that among the questions which suggested themselves in connection with this case were the following: How shall we explain the fact that there were no symptoms of any great dyspnoea at the time the foreign body was swallowed? Why is it that the symptoms of pronounced dyspnoea have developed so late? In answer to the second inquiry, he said that as time went on the cicatricial contraction of the parts became greater, and thus the symptoms of dyspnoea and dysphagia became progressively aggravated.

Another question that might arise was, How shall we explain the difficulty of expiration, as contrasted with the comparative ease of inspiration? This, he believed, was on account of the position of the foreign body, which was slanting, and gave to it the action of a valve. The stream of air rushing up from below had the effect of raising up the projecting edge of the button, and thus placing it more transversely to the axis of the trachea. The minute dimensions of an infantile trachea, still more reduced in this case by cicatricial contraction, would be influenced by very minute changes of position.

As regards the question whether the foreign body could have been extracted, he felt constrained to express a negative opinion. If, after tracheotomy, he had made use of a metallic probe, instead of the soft catheter, he would undoubtedly have detected the presence of the foreign body; but he doubted whether it could have been removed through the trachea without producing instant death from suffocation. On the other hand, it could not have been extracted from the cesophagus, on account of the rim of thickened tissue which held it.

DR. T. M. MARKOE referred to a case recently reported by Bennett May, in which he successfully extracted a foreign body which had been in the cesophagus for three years, and had ulcerated partly into the trachea. In answer to a question by Dr. Gerster, Dr. Markoe

stated that the child in this case was seven years old, and that he fully appreciated the marked advantages which this greater age would give over the case of an infant such as Dr. Gerster's patient.

DR. R. F. WEIR asked whether he rightly understood Dr. Gerster to say that the attempt to remove the foreign body would have produced instant death.

DR. GERSTER said that he believed that it would have done so, because the diameter of the button was larger than the calibre of the trachea; and hence it would have completely plugged the passage up, and probably for a sufficiently long time, during the attempts at extraction, to cause suffocation.

DR. WEIR then said that he differed from Dr. Gerster on this point, as in operations upon the throat he had more than once seen the trachea entirely occluded temporarily in a digital exploration, without any serious result following. He, therefore, thought that if the foreign body could have been seized, it might have been safely removed. The risk of suffocation would come from the button slipping from the grasp of the forceps after it had been lifted out of its bed, and even then experience has already shown that such bodies often tilt sideways, so as to offer the least obstruction to air currents.

MEDICAL AND CHIRURGICAL FACULTY OF MARYLAND.

Eighty-eighth Annual Meeting, held at Baltimore, April 27, 28, 29, and 30, 1886.

(Specially reported for THE MEDICAL NEWS.)

WEDNESDAY, APRIL 28.—SECOND DAY.

DR. RANDOLPH WINSLOW presented a

SUPPLEMENTARY REPORT OF THE SECTION ON SURGERY.

He said, in summarizing the prevailing professional opinion in regard to the treatment of penetrating abdominal wounds, it appears that there is an almost unanimous consent to the propriety of performing laparotomy where there is reason to believe that serious injury of any of the hollow viscera has occurred, or that hemorrhage is taking place; but there are certain cases in which the nature of the lesions is doubtful, and it is in such cases that diversity of opinion exists. In the suturing of intestinal wounds the cut surfaces should never be brought together edge to edge, but by means of the Lembert suture the peritoneal borders should be so inverted that narrow bands of peritoneum are approximated, as by this means union is more easily effected.

Amongst the important questions which are now engaging the serious attention of the medical profession, the world over, there is probably none of greater practical interest than the treatment of intestinal obstruction.

The causes of obstruction of the bowels are many, but the most frequent are constrictions, volvulus, and intussusception. In the large majority of cases an accurate diagnosis cannot be arrived at, and surgeons are not agreed as to whether these obscure conditions are best treated by medical or by surgical means, but there is a tendency to resort to laparotomy. Dr. Jonathan Hutchinson, of England, deprecates opening the abdomen until other means have failed, and reports a

number of cases treated successfully by a method which he calls abdominal taxis, or muscular treatment.

In Dr. Winslow's opinion, a case of intestinal obstruction should first have the benefit of rational medical treatment, first by laxatives, to overcome a possible obstinate constipation, then by copious enemata with the patient in the genupectoral or completely inverted position. If the symptoms are not severe, belladonna or opium may be administered in large doses; but if the patient presents urgent symptoms—severe pain, obstipation, constant vomiting, especially if the character of the latter becomes feculent—no time is to be lost: the abdomen should be opened in the linea alba below the umbilicus, the cause of the arrest ascertained, and the constriction released. He thinks a strangulated bowel within the abdominal cavity should be treated pretty much as a strangulated bowel outside of it. Dr. Illoy, of Cincinnati, strongly advocates the employment of enemata under heavy pressure; this, however, seemed to him a dangerous method, as the bowel may be ruptured or a gangrenous intussusception may be thrust backward into the peritoneal cavity.

On December 8, 1885, he opened the abdomen of a young woman who for seven days had had symptoms of intestinal obstruction as denoted by severe pain, obstinate constipation, constant vomiting, and at last the ejection of stercoraceous matter. Medicine and enemata having failed to give relief, laparotomy was performed, and the constriction found to be in the ileum, a loop of which had become adherent to the pelvis between the sacrum and rectum, with complete stoppage of its functions and great distention and congestion of the intestines. After much difficulty the adhesions were broken up and the loop of intestine released. The patient vomited stercoraceous matter whilst on the operating table and never had nausea or vomiting afterward. She did not present a bad symptom after operation, and made a complete and speedy recovery. Two other cases have been treated in this city.

DR. J. W. CHAMBERS then presented a paper entitled

WHAT IS THE PROPER TREATMENT IN CHRONIC SUPPURATIVE AND ENLARGED GLANDS OF THE NECK?

Such conditions are commonly classed as strumous glands or tuberculosis. If the alleged facts of Koch in regard to the relation of the bacillus tuberculosis to all caseous foci can be considered established, they go far to dispel the theory of "caseous infection." Such facts leave scrofula to mean a little more than a certain frailty of certain tissues and a susceptibility to injury that makes them particularly liable to chronic inflammatory disorders.

There seems to be but little question as to what are the dangers in "caseous foci," wherever formed, or however formed. Clinically speaking, they are malignant glands, and as such should be treated. The surgical fear of deep-seated cellulitis of the neck has lost its terrors under the influence of antiseptic surgery; and with anæsthetics and proper dissection, bleeding and shock are not now prominent dangers; and we are only limited by anatomical reasons in the extent to which we should attempt the removal of these glands.

He related four cases treated by the removal of deep-seated glands of the neck. In two of these cases, the glands lay beneath the deep cervical fascia and sterno-

cleido-mastoid muscle. In Case II. the upper and lower cervical glands were involved, so that in the removal the external jugular vein was cut between two ligatures in the post-triangle, and both external jugulars laid bare. Even the common sheath to artery, vein, and nerve was opened, and they were readily recognized at the bottom of the wound. And yet there were no symptoms, either during or after the operation, which would indicate that the important nerves had been tampered with; nor was there any evidence that one of the large veins had been ligatured; and the wounds afterward healed from top to bottom without any pus whatever. There was a slight transient rise of the temperature during the first twenty-four hours, but it was not accompanied by any signs of septic absorption, such as headache, etc. The dressing was left undisturbed for several days. The whole neck was firmly bandaged after having been packed with oakum.

THURSDAY, APRIL 29.—THIRD DAY.

DR. B. B. BROWNE read a paper on

THE CURETTE AS A DIAGNOSTIC AND THERAPEUTIC
AGENT IN GYNECOLOGY AND OBSTETRICS,

in which he presented the following conclusions:

1. That the curette is an important diagnostic agent in all obscure affections of the uterus.

2. That its use is less painful and less likely to set up cellulitis than the ordinary caustic and alterative applications.

3. That it is more efficient for the removal of endometrial growth than any other agent.

4. That after abortions its proper use will prevent hemorrhage and septicæmia.

5. That after labor the antiseptic fingers or hand used as a curette for the complete evacuation of the uterus, will lessen the dangers attending the puerperal state, will prevent fetid lochial discharge, and hasten the period of involution.

DR. GEORGE W. MILTENBERGER then read a paper on
PUERPERAL ECLAMPSIA.

He stated that the disease may be due to either centric or eccentric causes and that the remedies to be employed should be those which act upon the nervous centres and those which act upon the seat of the peripheral irritation. In appropriate conditions he held that bloodletting is the most powerful and direct remedy.

DR. P. C. WILLIAMS was glad that Dr. Miltenberger had had the courage to recommend venesection in certain cases. There are cases where its action is undoubtedly remedial. He also endorsed the distinction made in the paper between the conditions of anæmia and congestion in eclampsia, and the importance of recognizing the conditions if we would treat our cases successfully. He spoke also of the good results he had obtained from the use of a combination of chloral and jaborandi especially in uræmic convulsions.

DR. JOHN MORRIS said he had just been treating a case of eclampsia with most satisfactory results, using venesection, after chloroform had failed, with great temporary relief, and with the effect of dilating the os. Digitalis and jaborandi were afterward given. The child was delivered with forceps. The convulsions returning, chloral and morphia were given, being poured down through the nose.

DR. JOHN S. LYNCH agreed with Dr. Miltenberger on most points, but protested against the revival of venesection. The paper admitted a falling off in fatality since venesection ceased to be generally practised. A few cases are helped; but to teach its advisability to young men who may not be able to distinguish between the condition of anæmia and congestion is very dangerous. His rule is to administer chloroform first and then morphia. He could not see why chloral should be recommended. It is a hypnotic, not an anodyne. As to bloodletting, veratrum viride has all its advantages and none of its disadvantages.

DR. WILLIAMS thought Dr. Lynch's position a dangerous one, and did not see how a teacher can refrain from recommending measures on the ground that they might be abused. Such a doctrine would lead us to discourage the use of forceps. As to chloral, it is a nervous sedative identical in action with chloroform, into which it is changed in the body.

DR. A. B. ARNOLD considered that eclampsia is epilepsy in an acute form. The danger arises from the long continuance of the attacks—even epilepsy will kill if attacks recur with great frequency. Eclampsia, like epilepsy, is produced by a peculiar impressibility of the nervous system. Our dependence must be upon sedatives, chloral, chloroform, morphia, bromide of potassium, belladonna.

DR. LYNCH stated that in his teaching he recommends the forceps because there is no substitute for them. He considered that in teaching young men the safest measures should be recommended so far as possible. He, therefore, recommends veratrum viride as safer than venesection.

DR. MILTENBERGER closed the discussion by saying that the only discrepancy in opinion was as to the value of venesection. He had explained that, except in conditions of congestion, the benefit of bloodletting is only apparent, and that it is injurious. But in cases of congestion he challenged the world to show a better remedy. This remedy had held its own in spite of all the efforts that had been used against it.

FRIDAY, APRIL 30.—FOURTH DAY.

THE COMMITTEE ON MEMOIRS

reported the death during the past year of four members of the Faculty, viz., Drs. Richard McSherry, Edward De Loughery, Thomas Dougherty, Edward Schwartze.

DR. RICHARD H. THOMAS read a paper entitled

THE HOME TREATMENT OF ORDINARY PHTHISIS
AS AFFECTED BY THE BACILLUS THEORY.

He said that while the revolution that Koch's theory had produced in our ideas in regard to the etiology and pathology of phthisis, has not as yet been followed by a similar revolution in the therapeutics of the disease, it has at least had the effect of increasing the accuracy of the object we have in view in treating it. If the bacillus tuberculosis holds a causative relation to phthisis and to its progress, the object of treatment would seem to be to attack it. This has been done in three main lines. 1st. To stop or at least to limit the spread of the disease by destroying its germs, and by disinfecting the sputum, etc., of phthisical patients, some have even advised the isolation of those affected. 2d. To destroy the bacillus

within the lungs, either by antiseptic inhalations or by specific antibacillary medicines taken by the mouth. It has also been suggested to forbid the use of potatoes and other articles of food rich in potassium salts, for which the bacillus has a special affinity, with a view to starving it out. 3d. To render the tissues proof against the bacillus, or at least enable them to resist its influence more successfully by increasing the vitality of the whole system, and particularly of those portions that are specially liable to its attacks.

He said that the effect of the bacillus theory on the therapeutics of phthisis has been chiefly to impress upon the profession the importance of prophylaxis, of cleanliness, fresh air, and the hygienic treatment of the disease.

DR. E. G. WATERS then read a paper on

SEWERAGE AND HOUSE DRAINAGE.

The utilization and final disposal of sewage are questions which have attracted the attention of sanitarians, and claimed the most thoughtful consideration of our ablest engineers. Whether to let it flow away to utter waste in the current of swiftly running rivers, as at Memphis and Liverpool; to subject it to separation and desiccation as at Dordrecht and Amsterdam; or to employ it directly for agricultural uses, by the process of irrigation, as at Paris and Berlin, will depend upon a variety of incidents, having special application to any given case. One feature essential to the success of the latter method is the intermittent discharge of the sewage into the soil to be fertilized. The commercial value of the sewage of English cities is estimated to be about four cents a ton, that of Boston about one cent a ton, and that of New York at a yet lower value.

SATURDAY, MAY 1.—FIFTH DAY.

The Committee to draft a law relating to the supervision of the interests of the insane in Maryland, presented their report, and congratulated the Faculty on the enactment of the new law.

Dr L. F. Morawetz then read a paper on *Mind in Statu Nascente*, and was followed by Dr. J. S. Conrad, with a paper on *The Study of Insanity*.

DR. JOHN N. MACKENZIE then read a paper on

THE RELATION OF CERTAIN STATES OF ATMOSPHERE TO THE PREVALENCE OF CATARRHAL AFFECTIONS OF THE UPPER AIR-PASSAGES,

which is supplemented by the author's more elaborate communication to the American Laryngological Association (1885) on the origin, causes, and geographical distribution of catarrhal affections. The atmospheric conditions discussed were *heat, cold, moisture, and air in motion*. Dr. Mackenzie argued at length the influence of climate from the standpoints of geographical distribution, and their development of catarrhal processes from simple change of residence. Removal from an equable or temperate climate to one in which the atmospheric conditions are constantly changing will often induce them, and acclimation is purchased frequently at the price of a nasal or laryngeal catarrh. It also occasionally happens that change of residence may beget a predisposition to catarrhal affections, which only manifest itself upon the return of the individual to his native air.

DR. WHITFIELD WINSEY then presented

SOME THOUGHTS ON PHTHISIS PULMONALIS,

in which he inquired into the evidence, as to whether or not the African and mixed races, in whose blood there is more or less of the African, are practically susceptible to the disease. That the different races possess greater susceptibility or immunity with regard to certain diseases is a well-known fact. One of the greatest causes of this susceptibility seems to be the change from his native clime to that of another, whether cold or temperate.

DR. F. DONALDSON, JR. exhibited a *Pneumatic Cabinet*, and explained it and pneumatic differentiation.

The following were elected

OFFICERS FOR THE ENSUING YEAR :

President.—Dr. George W. Miltenberger.

Vice-Presidents.—Dr. Thomas Opie, Dr. Richard Gundry.

Secretary.—Dr. G. Lane Taneyhill.

Assistant Secretary.—Dr. Robert T. Wilson.

Corresponding Secretary.—Dr. T. Barton Brune.

Reporting Secretary.—Dr. Richard H. Thomas.

Treasurer.—Dr. W. F. A. Kemp.

Executive Committee.—Drs. P. C. Williams, John R. Quinan, N. P. C. Wilson, James Carey Thomas, J. Edwin Michael.

Adjourned.

NEW YORK NEUROLOGICAL SOCIETY.

Stated Meeting, May 4, 1886.

THE PRESIDENT, C. L. DANA, M.D., IN THE CHAIR.

DR. C. L. DANA, President-elect, in his

INAUGURAL ADDRESS,

said he would call the attention of the members to a large gap which exists in our knowledge of the etiology of nervous disease, and to the need of closer examination into this branch of that specialty. At present our knowledge of the etiology of nervous diseases (leaving out poisons) may almost be summed in three words: heredity, syphilis, and rheumatism. Is it not possible that neurologists have neglected to apply the ideas with regard to microorganisms and infection which are now dominating pathology? It is true, however, that Leyden had found a microorganism in cerebrospinal meningitis, Rosenbach the bacillus of tetanus, and Strümpell had urged the view that acute anterior poliomyelitis is an infectious disease, etc.; yet these points are not solidly established, and the relation of infectious poisons or parasites to nervous diseases deserves closer study. It had seemed to him that many cases of the chorea of Sydenham were really infectious in origin. He would also call attention to the possibility of a parasite being at the root of some of the neuro-degenerative disorders, such as ophthalmoplegia externa, bulbar paralysis, and progressive muscular atrophy. The necrobiotic process which takes place in these disorders is often so steadily and frightfully progressive, so nearly malignant in its fatal course, as to suggest some active agency behind it.

HISTORY OF A CASE OF PRIMARY LABIO-GLOSSOPHARYNGEAL PARALYSIS.

DR. E. D. FISHER presented a patient whose history was as follows: Mrs. H., æt. forty-three, had always

enjoyed good health up to July, 1885. At this time she lost her oldest son, who was accidentally drowned. She was much affected by the loss, and was constantly crying and calling for her son. The following September she first noticed some difficulty of speech and inability to move her tongue freely, with also some difficulty in swallowing. Dr. Fisher saw the patient for the first time in February. She then presented the following symptoms: inability to protrude the tongue beyond the teeth, to form the lips so as to whistle or blow, the lower lip hanging down and the saliva running freely from her mouth. The lower part of her face was expressionless. No loss of power of the upper muscles of the face. The patient was unable to pronounce linguals or labials, and also, as the palate was partially paralyzed, was unable to pronounce the explosives; all her tones were decidedly nasal. Her food had to be pushed with her hand to the back of her mouth, when, with difficulty, it was swallowed. There was no tendency for liquids to return through the nose, but they would come out of the mouth. There was no loss of sensation or taste.

The faradic current was somewhat decreased in reaction, but there was no reaction of degeneration to the galvanic current.

These symptoms have all increased since first seeing the patient, and she has lost about twenty pounds in weight. There are no signs of paralysis of the upper extremities; the disease is located entirely in the bulbar nuclei.

The interest of the case lies in the fact that the cause can be clearly traced to the excessive grief at her loss.

Dr. Fisher suggested that, recognizing the lesion as seated in the fourth ventricle, involving the hypoglossal, facial, vagus, and glossopharyngeal, the question of the situation of the facial nuclei be taken up. Clarke has mentioned that the facial has a lower nucleus for the orbicularis oris, and Gowers thinks that fibres for this muscle are given off from the hypoglossal nucleus. Either of these theories would explain the escape of the upper muscles of the face, as is usual in this disease.

THE PRESIDENT said there were several obscure points for discussion which Dr. Fisher's case had suggested, among others the question of the etiology of labio-glosso-laryngeal paralysis, some features in its symptomatology and its treatment. Regarding the etiology, it was once claimed, he believed, that the disease was always of specific origin. He had had three cases under treatment for the past two years, and of those only one gave a pretty clear specific history; in the other two no such influence could be detected at all. In the one, although the patient gave some evidence of having had specific disease, yet it was simply assumption that this was the cause of the bulbar affection. In his opinion we could only place specific disease among the predisposing causes.

DR. M. PUTNAM JACOBI asked whether the patient had heart disease.

DR. FISHER replied that the heart had been examined, but no evidence of cardiac disease could be discovered.

DR. B. SACHS thought the case was one of great interest to all. Bulbar paralysis, he thought, is more common in Europe than in this country. He had seen a number of cases at the clinic for nerve diseases at Strasbourg, under Professor Kussmaul. The etiological factor which Dr. Fisher had mentioned, particularly in

his own case, deserved consideration. It was further interesting from the fact that the central lesion in this disease and in diabetes was near the same region, and he had known of a number of cases of diabetes in which the etiological factor was intense emotion.

Dr. Sachs thought it was difficult to explain why in an affection like that from which Dr. Fisher's patient was suffering, in which the pathology was similar to that of progressive muscular atrophy and poliomyelitis anterior, consisting of an affection of the nerve nuclei, there was not the reaction of degeneration in the muscles supplied by the affected nerve nuclei. But it is possible that the reaction of degeneration will appear later.

DR. JACOBI thought that the suggestion made by Dr. Sachs as to the analogy between bulbar paralysis and diabetes, so far as their possible origin in emotional influences is concerned, was worthy of consideration, and the question had arisen in her mind, whether such emotional influence may not have first influenced the cardiac centre in the medulla oblongata and secondarily contiguous centres. Dr. Jacobi spoke of certain anatomical considerations in connection with bulbar paralysis, and referred to several cases reported by Eisenlohr. It seemed to her that exemption of the upper branches of the facial nerve in typical bulbar paralysis was an extraordinary circumstance, and one which she would be glad to have explained. It seemed remarkable that in Dr. Fisher's case the symptoms could have remained limited for so long a time.

THE PRESIDENT had examined the urine for sugar in two cases of bulbar paralysis, but with negative results. With regard to the affection of taste, it is well known that that sense is not usually involved in bulbar paralysis. He had thought that the glossopharyngeal nerve at its nucleus was purely a sensory nerve, and that it received its motor fibres from the spinal accessory, that it supplied taste to the posterior, and perhaps to the anterior part of the tongue. The question as to whether it supplied general sensation to the fauces or posterior part of the tongue, it seemed to him, was involved in considerable obscurity. The cases which he had seen had given no positive evidence that the glossopharyngeal nucleus was involved, except in one in which there was disturbance of the sense of taste, and there had been two other cases reported in which this sense was involved. With regard to the seventh nerve, and involvement of its nuclei, he thought that in some cases the branches of that nerve were involved. In one of his cases the upper portion of the face was not wrinkled, the eyelids could scarcely be approximated, showing that the facial nuclei were becoming involved. Regarding the reaction of degeneration, it is never present except in the latter stages. There might be partial reaction of degeneration at an earlier date. The explanation which he had given was that, trophic centres of the nerve were involved, causing atrophy, to which the paralysis was due.

As to treatment, he thought he should adopt a radically different form from what he had hitherto employed. It seemed to him that the cases improved for a while under electrical treatment, and then such treatment seemed to make them worse. He would give the affected muscles complete rest if possible, and confine the electrical treatment to the stable galvanic current.

DR. SACHS remarked that the phenomena of the reaction of degeneration might be present at first only to a limited extent, developing more completely as the case progressed.

AMERICAN SURGICAL ASSOCIATION.

Seventh Annual Session, held at Washington, D. C., April 28, 29, and 30, and May 1, 1886.

(Specially reported for THE MEDICAL NEWS.)

THIRD DAY, APRIL 30.—MORNING SESSION.

DR. ROSWELL PARK, of Buffalo, exhibited

A TRACHEOTOMY-TUBE

which he had invented as a modification of one invented by Dr. Nairn of Ireland, an account of which appeared in the *British Medical Journal* for last year. The tube consisted of two parts which closed like the blades of a bivalve aural speculum. It was to be introduced closed, tipped by a small olive, and separated, the olive-pointed rod being then withdrawn. The chief advantage claimed for the instrument was the facility with which it could be cleansed.

DR. PARK then read a paper on

LIPOMA TESTIS, OR A LARGE ACCUMULATION OF FAT IN THE TUNICA VAGINALIS.

Lipomata of the spermatic cord, he said, are rare enough always to attract attention, but lipomata of the testicle are of such exceeding rarity that, believing that he had had a case which deserves this designation, he desired to put it on record, and make it the basis for a few comments.

J. K., aged forty, was referred to him by Dr. Conrad Diehl, early in September, 1885. Patient had noticed an almost painless, slow, but continuous enlargement of the right testicle for the past eighteen months. It was then about the size of a cocoanut, and caused inconvenience only by its weight and bulk.

On examination, the scrotum was found filled by a large mass which crowded the left testicle into a small space at its upper part. This tumor was solid, yet soft, not tender, except as the right testicle was pressed upon. On handling it, ill-defined fluctuation was noticed. By exploratory puncture all suspicion of fluid was removed. Patient had every appearance of robust health, and the idea of malignancy could not be entertained. Over the surface of the tumor, the scrotal integument moved with perfect freedom. An exact diagnosis was not ventured, though there was strong suspicion that the mass was fatty; but radical operation was advised, and consented to.

October 4, the patient was operated on by the essayist, at the Buffalo General Hospital. As soon as the tunica vaginalis was incised, a mass of densely packed fat was revealed, which was very slightly adherent to the interior of the tunic. It was turned out without difficulty. After shelling it out, the operator found, on separating its lobular masses with the fingers, that the right testicle was not merely embedded in its upper part, but incorporated with the fat by apparently intimate tissue connection. It was, moreover, supplied with blood both from the testis and from the cord. The cord seemed to enter the tumor, and then pass in its substance for about two inches before reaching the testicle. There

were no evidences of past or present hernia. The whole tumor was removed *en masse*. Recovery followed without incident.

The entire mass, after removal, weighed just three pounds. Dissection revealed nothing beyond what has already been stated. The speaker was unable to come to any positive conclusion as to the exact point of origin of the adipose mass. While the blood-supply might indicate one origin, the equally evident blood-vessels from the testicle pointed as strongly to another. The exact origin, although of pathological interest, the speaker deemed of little clinical importance, and considered himself clinically correct in speaking of the case as lipoma testis, or, if the term be preferred, *lipoma intratunicum vaginalem*.

Dr. Park then reviewed briefly the literature on the subject of lipoma testis, ancient and modern, in which he had found a number of supposed cases. He had found, however, that the statement of Delafield and Prudden, that "lipomata, either pure or in combination with myxoma and sarcoma, may arise from the connective tissue of the spermatic cord, or from the tunica albuginea," is the only one bearing on this subject in any of the works on pathological anatomy.

In looking over various authors of the past century, he continued, he had been struck by the looseness of their phraseology concerning affections of the testis. Thus, lipoma testis and fungous testicle are almost synonymous terms, according to their usage. It is not, perhaps, incredible that a tense distention of the tunica vaginalis by a mass of fat might lead to atrophy or even ulceration, and to the formation of an adipose hernia, but in each case that he had alluded to above, where the title would imply a lipomatous condition, nothing of the kind was revealed, but rather one of the true fungous lesions.

Therefore, accepting the cases reported by Kimball, Jobert, and Deguise as authentic, they constitute all that I have been able to find, and I may consistently claim that mine is the fourth on record. This rarity of the lesion, coupled with its pathological interest, and the obscurity of diagnosis attending such cases, must be my excuse for taking up the time of an Association which yet, I believe, is not above a careful study of small things.

DR. PARK then reported

A SUCCESSFUL NEPHRECTOMY FOR FIBRO-CYSTIC DISEASE OF THE KIDNEY, IN A BOY TWENTY-THREE MONTHS OLD.

(See page 567.)

DR. L. McLANE TIFFANY remarked that while he could not speak from experience, he thought that the propriety of the incision for nephrectomy could not be questioned in this case, as there was no choice to be made.

The point of interest to him had been the author's reference to the transfer of function in this case from one kidney to the other. In his opinion, it was not necessary to suppose that there had been any transfer of function, inasmuch as it has been shown that most of these cases of cystic disease of the kidneys in young children are congenital. It was more than probable that the affected kidney in this case had never performed any function. The disease is frequently found associated with other defects of original structure, as deformities

of the limbs, etc. There appears to be no communication in these cases between the Malpighian capsules and the pelvis of the kidneys, and the urine that is formed in the capsules helps to form the cysts by its pressure and distention.

DR. W. H. CARMALT concurred in regard to the rarity of lipomata of the testes, since he had not been able, in a pretty thorough search of the literature, to find a single case which he could consider as a true lipoma. Tumors about the testes are usually of a mixed variety. When, for example, we have a sarcoma, it is generally a myxo-sarcoma, a fibro-sarcoma, a cystic sarcoma; when we have a carcinoma, it is frequently mixed with some other variety of growth. With this point in view it is proper, he thought, to advise in every case of tumor in this region, the prompt extirpation of the growth.

DR. E. M. MOORE, of Rochester, reported two cases in which he had found a fibroid disease of the kidney. True fibroid of the kidney, he said, is a very rare affection. In one of the cases the kidney tumor, when removed post mortem, weighed ten pounds. In making the dissection of the specimen, the condition described by Dr. Tiffany was not found, but the pelvis of the organ was found to spread out widely until it reached high up into the cortical portion. In another case in which he had made the diagnosis of this condition, the patient lived for eighteen years, the tumor gradually enlarging. She finally died as a result of a general suppurative disease occurring in the tumor.

DR. PARK, in closing the discussion, stated that he could not agree with Dr. Tiffany that the affected kidney in his case had been functionally inactive, since microscopic examination showed that the external portion of the organ was almost normal in appearance.

DR. W. W. KEEN, of Philadelphia, then read a paper on

STRETCHING OF THE FACIAL NERVE.

He first cited a case in which he had recently performed the operation; then presented and analyzed a table of the twenty-one cases reported to the present time, since Baum first made the operation in 1878.

His case was that of a woman forty-eight years of age, sent him by Dr. Sinkler. The patient came under his care at the Woman's Hospital, April 1, 1880. She had suffered from severe attacks of nervous trouble in her early childhood, and had twice been paralyzed. Five years ago, coincident with menstrual disturbance, her eyelids began to twitch, and, six months after, the whole face and platysma were incessantly in spasm, increased by any mental or muscular effort—such as eating, speaking, or being spoken to. Later the spasms became painful, and finally the pain remained constant.

In June, 1884, the right infraorbital nerve had been resected with partial relief for only six weeks. Soon after, the twitching extended to the right side and leg.

April 2d, Dr. Keen cut down upon the seventh nerve by an incision behind the right ear (Baum's method), displacing the parotid gland forward and obtaining access to the nerve just after its exit from the stylo-mastoid foramen. Embedded in the connective tissue, it required considerable search and dissection to lay bare the nerve. The exact place of its entrance into the parotid was quickly discovered by a very weak current of electricity, one electrode being placed on the cheek, the other (only the wire itself) being touched at

successive points from above downward. The trunk was then laid bare and stretched, the force being estimated at from four to five pounds—just short of lifting the entire head.

Total facial palsy followed, with relief, not only from the spasms in the face and neck, but also in the side and leg. The wound healed in four days, and the sutures were removed. The temperature did not rise above 100.4° F. Up to the twenty-fifth day no return of the spasms had occurred, and the patient was delighted with the result, the paralysis being a welcome substitute for the spasms.

Dr. Massey had examined the case electrically, and found the reactions of degeneration. The later history of the case will be reported in subsequent years. A review of the table presented indicated that the paralysis always disappears, no matter how severely the nerve has been stretched; and that, although the spasms often return, they are of a less severe character.

In fourteen of the reported cases, the spasms recurred within a week in three; absolute relief extended over from three weeks to four months in five others, in four of them lasting much longer; in the remaining six the relief extended over from four months to a year, with improvement still existing in three of them.

As a palliative measure, therefore, this operation would seem to be indicated; yet, of the five cases reported "cured," two had continued for three months, and three had remained well for from two and a half to five years. Two of the twenty-one reported cases were too recently reported to give the final results.

He expressed decided preference for Baum's method over that of Hueter, in which the nerve is reached through the parotid gland. He bandages the lower jaw and gives fluid food for three or four days, in order to keep the parts quiet while healing.

In conclusion, attention was called to two cases in which palsy existing prior to the operation was benefited by the nerve-stretching, both electrical and voluntary control being obtained to some extent, the essayist suggesting that in persistent facial palsy stretching of the seventh nerve be resorted to a therapeutic operation.

DR. L. McLANE TIFFANY remarked that he did not desire to enter into a discussion of the paper, although he must express admiration for the operation and the successful result obtained. He desired to know, however, what the object was in operating upon the intraorbital nerve, to which reference had been made? He asked further with regard to the point at which the seventh nerve crosses the chasm between the exit from the stylo-mastoid foramen and its entrance into the parotid gland, and the method by which its discovery was made with the electric current. Was a strong or weak current employed?

DR. T. F. PREWITT remarked that he did not question the propriety of the operation performed. An important question may be raised here, however, as to the advisability of stretching the entire nerve or only some of its branches.

DR. A. B. WATSON said that the operation was undoubtedly justifiable, even with the hope of giving only temporary relief. It is an operation with which we are not thoroughly familiar—that is, we know little of the changes that are produced in the nerve by the operation. We know that where the stretching is carried to

a sufficient degree, it will produce a paralysis of the nerve and thus relieve the pain. It is advantageous both in cases of neuralgia and in cases of spasmodic disease. Whether the effect is due to the gross changes produced in the nerve or whether it is due to some molecular change, has not yet been determined. In this particular case it would appear that the elongation of the nerve persisted in its effect, and that it possessed advantages over neurectomy which would leave a more extensive scar. Neurotomy, it has been shown, gives only temporary relief, even in the most successful cases. Neurectomy gives better results, and although in most cases its effect is only temporary, the relief may continue for a number of years. It seems in many cases that the relief afforded by a neurectomy depends directly upon the amount of nerve tissue removed. We get better relief from elongation of the nerve than from simple neurotomy.

In the case reported, it seems remarkable that the relief was so general. It would appear that the operator had to deal with a neuralgia of central origin, the central difficulty being for a time relieved by the operation. Which of the methods shall be adopted, the speaker thought, must depend upon the individual case. He stated that he had never elongated the seventh nerve, but had performed the operation with benefit on other nerves.

DR. JOHN B. ROBERTS called attention to a case which had come under his observation, and which he had reported some time ago, but which he thought of sufficient importance in connection with the present case to recall. A man came to him, saying that he had a peculiar condition of the skin of his face over the parotid region; that whenever he chewed anything, particularly anything which required a great deal of chewing, a peculiar secretion appeared on this portion of his face. A distinct scar could be seen over the region, and on questioning the patient it was revealed that he had had an abscess in the region of the parotid gland which had been opened. The buccal surface was then explored, and on passing the probe into the orifice of Steno's duct, a drop of pus was exuded. After persistent dilatation of the duct, for a short time the secretion gradually disappeared. It appeared that the duct had been interfered with in some manner by an operation on that portion of the face—probably in opening an abscess—and that the saliva had by some means found its way into the sweat glands and thus appeared on the face. He thought that the case might be of interest, because of its bearing upon the incision made for the operation under consideration. He added that, in conversation recently, the opinion was expressed that the anterior incision was the better for operation on only a branch of the nerve; in view of the present case, he thought the posterior incision the better.

DR. KEEN, in closing the discussion, remarked that with reference to the question asked by Dr. Tiffany, as to why the infraorbital nerve had been excised, he would state that the chief difficulty previous to that time was the convulsive attacks, associated with which there was some pain, and it was in the hope of securing relief from these difficulties that the operation was performed. The speaker had not, however, seen the patient previous to the performance of that operation.

With reference to the point at which the nerve crosses

the chasm between the stylo-mastoid foramen and the parotid gland, as inquired by Dr. Prewitt, the speaker replied that there is a great deal of difference in this regard in different individuals. It was this difference, and the consequent difficulty attending its discovery by other means, that prompted the speaker to make use of the electric current. In using this method, he had found that the moisture of the region under operation was so conductive of the current that it was only when an exceedingly weak current was employed that the exact seat of the nerve could be positively determined.

In regard to the propriety of stretching only a branch or the entire nerve-trunk in cases of spasm limited to the muscles of a part of the face, as in blepharospasm, etc., he expressed preference for the former method. For this purpose Hütter's method would be preferable, because it reaches the nerve after its bifurcation. The upper branch may then be stretched for affections about the orbital region, and the lower branch in affections of the lower portions of the face.

The case reported by Dr. Roberts reminded him of one that had been reported in which there was, just at the moment of stretching the nerve, a gush of tears from the eye of the affected side. This sudden and peculiar secretion might possibly be allied to the secretion of sweat in Dr. Roberts's case, though he could give no physiological explanation of either.

To Dr. Watson's question, as to what effect stretching has on a nerve, the speaker replied that he supposed it was largely a mechanical disturbance of the nerve structures. A great part of it is probably also due to the physiological rest which is secured to the muscles by the disturbance of the function of the nerves; it breaks up a vicious habit. It is further probable that the nutrition of the nerve is affected to a great extent.

The relief afforded in the case reported, not only to the facial spasm, but also to the right side and leg, was a matter of as great surprise to him as it was to Dr. Watson.

In conclusion, he desired to call attention again to the proposition that he had made in the paper, that in cases of persistent palsy of the face, whether it would not be well to test the effect of nerve-stretching to a moderate degree to determine if this would not result in an increase of the irritability of the nerve, and partial or total relief of the palsy.

DR. C. H. MASTIN, of Mobile, then read a paper on

SUBCUTANEOUS EXTERNAL URETHROTOMY.

After a complete review of the methods of operative procedure for the relief of urethral stricture, whether by divulsion or by internal or external urethrotomy, the essayist described a method which he had devised in 1868 and employed ever since, with no reason to desire a modification of it. He agreed with Mr. Syme that there is no occasion for the usual external urethrotomy. If it is impossible to dilate the stricture, make internal urethrotomy. Where the stricture is too close to admit of dilatation, the essayist passed through it a filiform bougie by means of passing a number of these through a tube introduced down to the obstruction; then, by means of a hook passed through a minute external opening, drew down the bands and incised them. The instruments required for the operation were exhibited with each step of the operation. The results obtained

by the essayist were published in 1872. Originality was not claimed for the operation, as it was based on an old method. The essayist stated that, remembering the maxim "dilate where you can, cut where you cannot," he operated only on cases which required some operation for the evacuation of retained urine, and where it is not possible to introduce an instrument into the bladder.

In conclusion, he stated that the time required for recovery from this operation is much shorter than that required from others, all cases in his charge having recovered in from four to twelve days.

DR. N. P. DANDRIDGE remarked that he would have to speak of the paper on merely theoretical grounds, as he had never performed this operation. In this regard, however, he believed himself on a level with the other Fellows of the Association. In the hands of its originator the operation had certainly been a success. In following the essayist through the paper, the speaker could not agree with all the conclusions. That external urethrotomy is not required in any case, he thought, is not correct. In a case of stricture, for example, with fistulous openings, the speaker preferred external urethrotomy, as it offers much greater safety to the patient than does the internal section. He thought that internal urethrotomy in these cases should be the exception and not the rule. Making the incision on the roof of the urethra is also of advantage in the internal urethrotomy; still he thought too much stress had been laid on the dangers of an incision upon the floor of the urethra. The latter incision is sometimes of advantage, for in some cases it is in the floor that we find the greatest induration. He could but feel that a great part of the success obtained from the operation was due to the skill of the operator.

DR. DAVID PRINCE stated that he had for a number of years relied upon electricity in the treatment of strictures of the urethra. He based the effect on a belief in its ability to soften and remove new fibrous tissue in other parts. He had found in a number of cases that after its use daily for a short time, a stricture which required two hours' manipulation to overcome could be passed in five minutes.

DR. T. J. DUNOTT remarked, that while the operation was doubtless suited to some cases, there were others to which he thought it would be inapplicable. Nothing had been said about cases of multiple stricture with excessive induration. He thought, further, that a great difficulty in the treatment of strictures, and an important cause of the frequency with which sections are now required, is a lack of patience on the part of the surgeon. It would be found that in most cases the stricture would yield to manipulation if more persistently employed.

DR. MASTIN concluded the discussion by stating that he desired the Fellows of the Association to try his operation, but that he could not be responsible for the results if improper instruments were used or if it were unskillfully done. If properly done with proper instruments, he knew that it would be successful, and that the time required for treatment would be much less.

DR. J. S. COLEMAN, of Augusta, Ga., reported

A CASE SIMULATING ABDOMINAL PREGNANCY AT FULL TERM; LAPAROTOMY AND CÆSAREAN SECTION, AND REMOVAL OF A LIVING CHILD.

He believed this case to be unique. The patient was

a colored primipara, aged twenty-four. He was called in consultation, as it was believed she had an extra-uterine pregnancy. She thought herself at the end of gestation, and for three days past had suffered severe pains. The abdomen was more than ordinarily prominent. On vaginal examination he found a partial procidentia, the cervix protruding beyond the labia. After vaginal and rectal examination, and external palpation of the abdomen, he, too, was convinced of the correctness of the diagnosis, which was confirmed by several other physicians. Surgical interference was believed to be imperative, and it was thought that the sooner it was undertaken the better would be the prospects of both mother and child.

The various steps of the operation were then narrated in detail. Death occurred on the eighth day from septicæmia. The autopsy revealed pus along the sutures, the uterine wound ununited and gaping.

He not only considered an operation imperative, but thought the one employed the most suitable to the circumstances.

DR. J. R. WEIST thought that, in all probability, the use of the sound would have established the diagnosis. Had the case been one of extrauterine pregnancy, the muscular tissue of the body of the uterus would not have been greatly developed, therefore any contractions induced by the sound would have hardly endangered a rupture of the fetal cyst.

In a case of uterine pregnancy of his own, in which a successful laparotomy was made at full term, the cervix was two and a half inches long, and the canal, which was large enough at the external os to admit the finger, gradually narrowed until it became very small at the internal os. Before he saw the patient, the attending physician had not only introduced the sound, but after thoroughly opening the cervix with Barnes's dilators, had introduced the finger, and completely explored the interior of the uterus without exciting contractions of either the uterus or abdominal walls sufficient to threaten the integrity of the fetal sac.

Dr. Coleman's patient was evidently in a bad condition when first seen; her state must have been worse when the operation was performed, four days later; therefore a successful issue of it was hardly to have been expected, it being well settled that long delay in operating after the commencement of labor greatly increases the risk of opening the uterus. Had it been known that the case was one of intrauterine pregnancy, the necessity of abdominal delivery would still have been apparent, because of the impossibility of sufficiently dilating the cervix of the character described to allow the passage of a child unmutated, weighing seven or eight pounds; and as this condition of the cervix made laparotomy impossible, the mistake in diagnosis was one involving no additional risk to the patient.

The operations possible in the case were the classic Cæsarean section—this operation as modified by Cohnstein, Frank, Kehrer, or Säger, the Porro, and the Porro-Müller. The first is very rarely, if ever, performed at the present day. The abdominal and uterine incisions may be the same, but the thorough cleansing of the abdominal and uterine cavities, the use of antiseptics, the closure of the wound in the uterus with sutures, and the drainage of the abdomen and uterus greatly change its

character. Yet all these improvements have hardly diminished the fatality of the operation. This ill-success, while it has been increased, no doubt, by delaying the operation, must depend in a great measure upon something else.

So far as he knew, the operation proposed by Cohnstein—opening the abdomen in the usual way, turning out the entire uterus, making pressure on the aorta to check the loss of blood, opening the posterior wall of the uterus vertically, emptying the uterus and passing a drainage tube through the Douglas cul-de-sac and vagina—has not been tried in practice.

Frank's method consists, after carefully disinfecting the abdomen and vagina, of turning out the uterus entire through the abdominal wall, incising it vertically, commencing low down in the vesico-uterine excavation; extracting the fetus and secundines; washing the front of the uterus, its interior and the vagina, with a five per cent. carbolic acid solution; passing a large drainage tube through the abdominal and uterine wounds, and out through the vagina; suturing the uterus above the tube with strong catgut; drawing the round ligaments together above the uterine wound, and securing them with Czerny's sutures, so as to close over and separate from the abdominal cavity the vesico-uterine pouch, which is to be drained by three tubes—"one utero-vaginal, one preuterine, and a third along the uterine wound to the top of the pavilion." Frank has operated by this method twice, losing his first patient, who died of shock in ten hours, and saving the second.

Kehrer opens the abdomen in the usual way, incises the uterus transversely between the insertions of the round ligaments, and closes the wound in the uterus by deeper, and a large number of superficial sutures of carbolized silk; Listerism is practised during the operation. Kehrer has done the operation four times, saving two patients and losing two. One died of septic peritonitis in fifty-three hours, the other died of septicæmia in five days.

In Sanger's operation, which, so far as it has been tried, promises to reduce greatly the mortality in these unfortunate cases, the abdominal incision is made as usual, the membranes are ruptured through the vagina, the uterus is lifted out of the abdomen if practicable, and incised vertically; great care is practised to prevent the entrance into the abdomen of blood or other fluids, and to prevent hemorrhage, a utero-vaginal drainage tube is introduced after the uterus is emptied and contracted, the wound in this organ is closed by turning the edges of the peritoneum in over the muscular layer, and deep-seated stitches of silver wire or silk inserted so as to penetrate the peritoneum and pass nearly through the muscular layer.

He then described in detail the method of closing the wound and the advantages afforded by the method. Sanger's operation has been performed in Germany eleven times with two deaths, all the children being saved—a remarkable result. So far as the speaker knew, the operation has been performed only four times in this country, once by himself, all the women having been lost. Adding these results to those of Germany, the operation stands with sixty per cent. of recoveries.

Porro's operation is too well known to require extended description. Some consider it the simplest and

safest method of performing the Cæsarean section; by others, it is considered a mutilation. The latter position is hardly defensible, as the loss to the world of other children from mothers demanding the operation is slight, while it is certainly a cruelty to expose a woman to the danger of a rupture of the uterus in the event of another pregnancy, or to that of a second Cæsarean section.

The mortality of Porro's operation, although less than that of Cæsarean section as it is usually performed, is greater than that of Sanger's operation. According to the statistics prepared by Dr. Clement Godson, the mortality of the former is 56 per per cent., three times as great as that of the Sanger in Germany, and 16 per cent. greater than when the fatal cases of the United States are added.

The child is entitled to some consideration, and its chances for life are less in the Porro operation than in the older methods of abdominal delivery.

As to the method of closing the uterine wound, statistics show that catgut cannot be depended upon; the facility with which it can be absorbed is a disadvantage, for it may absorb too quickly and permit gaping of the wound, and when it holds well it cuts the tissues. After the fetus is extracted the uterus generally contracts with much energy, and the incision contracts a great deal. The edges of the wound may be well in contact in the deeper portion, while the superficial portions will turn outward and may leave a gap between the edges. Post-mortem examinations show that in a few days, as in Dr. Coleman's case, very often the wound is open along its whole extent, and in its entire thickness, the sutures having cut through the tissues, and the edges of the wound are bathed in blood or pus. It is this opening of the uterine wound by the contractions and relaxations of the uterus that leads to the great mortality after Cæsarean section when performed by the old methods. The capability of the peritoneum to unite readily when the surfaces are held in contact is utilized in Sanger's method and in the few post-mortem examinations that surgeons have had the opportunity to make after it, the uterine wound has generally been found closed and united along the peritoneal edge.

In the case operated on by the speaker, the woman died at the end of forty-eight hours of peritonitis (the child is still living), but the case was a complicated one. As already stated, natural delivery was impossible, because of a fibroma developed in the posterior wall of the body and cervix, which filled the entire pelvis. Two very thin-walled cysts attached to the peritoneal surface of the uterus were removed, their pedicles being secured by silk ligature. The omentum was contracted into a thick nodular mass, indicating the existence of malignant disease.

At the autopsy there was about a pint of reddish serum in the abdominal cavity, but no blood-clots. The uterine wound remained closed, complete union having apparently taken place between the inverted peritoneal surfaces. This result, the speaker considered, demonstrated the value of Sanger's method of closing the uterine wound, as it will be remembered that in this case, owing to the interference of the tumor, the wound gaped widely, even when the uterus was well contracted.

In conclusion, he asked for an explanation of the low rate of mortality attending Cæsarean section, as com-

pared with the present, in the early history of the operation in this country.

CLOSING BUSINESS.

DR. J. EWING MEARS presented an amendment to the Constitution providing for the appointment annually of a committee of three to aid the President in preparing a programme for the ensuing session.

THE PRESIDENT, DR. GUNN, then thanked the Fellows of the Association for their support during the meeting, and congratulated them upon the high character of the papers that had been presented.

DR. MASTIN moved a vote of thanks to the President for the efficient manner in which he had presided over the deliberations. Adopted.

Adjourned.

NEWS ITEMS.

THE PHILADELPHIA COUNTY MEDICAL SOCIETY ON THE EXCLUSION OF ITS DELEGATES FROM THE AMERICAN MEDICAL ASSOCIATION.—A special meeting of the Philadelphia County Medical Society was held on Tuesday evening last to receive the report of its delegates to the American Medical Association. The President, Dr. R. J. Levis, was in the Chair and the attendance of members was very large.

The report of the delegation was a plain recital of the events connected with the final exclusion of the delegation from the last session of the American Medical Association. It stated that a protest, by whom signed they had been unable to learn, had been filed against the admission of the delegation. That this protest was referred to the Judicial Council of the American Medical Association, which, after hearing evidence in the case, decided to admit the delegation. This favorable report and decision were withheld from the Convention by certain of its officials, in contravention of the by-laws of the Association, and the case was reopened on the following day, the Judicial Council having decided to withdraw the report and to hear additional testimony. At both hearings the report charges that the members of the delegation were treated unfairly, and were not allowed to hear the testimony which was presented against their admission. The result of the second deliberation of the Judicial Council was the exclusion of the delegation from the Convention, on the ground that the members of the delegation had been illegally chosen.

On motion, the report was received.

DR. S. R. Knight rose to present what he claimed was a minority report, signed by himself and Dr. Wm. T. Taylor. Its admission was urged by Drs. Wm. H. Pancoast, H. Y. Evans, P. D. Keyser, F. Woodbury, and W. Welsh. Its acceptance as a minority report was objected to on the ground that its signers had failed or refused to attend every meeting of the delegation both in Philadelphia and in St. Louis; that they had not attended at St. Louis as delegates from the Philadelphia County Medical Society; that they had openly denied the right of the delegation to represent the Society, and that they had not exercised the right of a minority by attending the meeting at which the report was adopted, or of stating their objections to it, or of voting against it. The Society therefore declined to receive the paper signed by them

as a minority report, but invited Dr. Knight to read it as a personal statement for the information of the meeting, but this he refused to do.

Dr. D. Hayes Agnew then offered the following resolutions:

Resolved, That the Philadelphia County Medical Society has learned with surprise of the action of the American Medical Association at St. Louis in excluding the duly elected delegates from this Society.

Resolved, That, as the subject has been referred back to this Society for final action, the legality of said election is hereby reaffirmed, and that while it would be perfectly right for the delegates to vindicate the validity of their election by a resort to legal measures, yet, in the interest of peace, such action is not urged.

Resolved, That in excluding the delegates from this Society the Judicial Council have violated the plain rules of evidence and of justice.

These resolutions were adopted by a *viva voce* vote.

Dr. Pepper then moved that the report of the delegation be adopted as the views of the Society.

This resolution was adopted, and a division being called for, the vote stood 137 yeas to 24 nays.

It was then ordered that the Secretary forward copies of the report, with the resolutions offered by Dr. Agnew, to the officers and members of the Judicial Council of the American Medical Association, and to the officers and permanent members of the Medical Society of the State of Pennsylvania.

Dr. H. C. Wood moved that the action of the delegates at St. Louis be approved, and that they receive the thanks of the Philadelphia County Medical Society. Adopted.

The meeting then adjourned.

A NEW LABORATORY FOR THE UNIVERSITY OF THE CITY OF NEW YORK.—The Medical Department of the University of the City of New York, has just received a gift of \$100,000 for the construction and maintenance of a laboratory building, to be known as the Loomis Laboratory. The gentleman who has made the gift wishes that for the present his name should not be made public. Land adjoining the property of the College has already been purchased, and it is hoped that the new building will be ready for occupation next year.

COLLEGE OF PHYSICIANS AND SURGEONS.—At the Annual Commencement of the College of Physicians and Surgeons of New York, on May 13, the Degree of Doctor of Medicine was conferred upon ninety-six candidates.

THE NEUROLOGICAL REVIEW.—The first number of a new monthly journal, thus entitled, has just been issued. It contains, among other interesting matter, an elaborate "Study of Epilepsy," by the Editor, Dr. J. S. Jewell. The *Review* is published by Rand, McNally & Co., of Chicago.

THE MEDICAL NEWS will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.

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